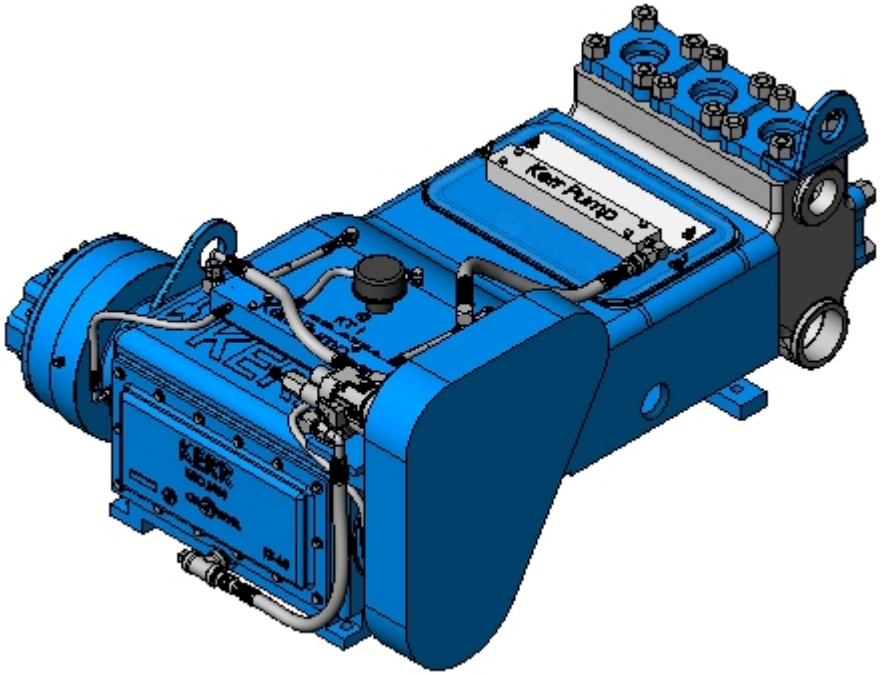
Parts & Service Manual

Kerr KT-3350PT/KT-3400PT Piston Pump



Kerr Pump Corporation

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NEW PUMP WARRANTY

1) **KERR MACHINE COMPANY** (Kerr Pumps) warrants its new HDD pumps to be free from defective materials and/or workmanship for 1000 HOURS OR ONE (1) YEAR, whichever comes first, from date of sale by distributor, provided that the new pump is registered in accordance with Paragraph No. 2 hereof, properly installed and operated in accordance with the Company's Service Manual, and all other terms of this warranty agreement are complied with by the purchaser. As hereinafter provided, this warranty includes the replacement of parts and labor to correct any deficiency. All defective parts must be returned to the Company's Home Office for examination before this warranty is effective. This warranty applies to parts, which have been replaced under this warranty only so long as the original pump warranty is effective. This warranty is for the exclusive benefit of the purchaser and is not transferable.

2) Each Distributor of a new **KERR PUMP**, will provide the customer with a registration blank furnished to him by the Company which must state the date of sale, be signed by the purchaser and the Distributor, and delivered to the Home Office of the Company within fifteen (15) days of the date of sale.

3) In the event of a claim under this warranty, made within the 1000 HOUR warranty period, the purchaser must notify the Distributor, and the Distributor shall contact **KERR PUMPS** before any repairs or service calls are made.

4) All warranty claims must be sent to **Kerr Pumps Home Office** on the authorized warranty claim form provided by **Kerr Pumps**, and available from the Distributor before any warranty claim will be considered. It is understood that **Kerr Pumps** will deteriorate due to ordinary wear, therefore, the following credits shall apply to all replacement parts, labor, surface freight, travel time and mileage allowance furnished under this warranty.

FOR 1000 HOUR CLAIMS

A. For the first 250 hours, 100% credit will be allowed on a current list price basis.
B. From 251 hours to 500 hours, 75% credit will be allowed on a current list price basis.
C. From 501 hours to 750 hours, 50% credit will be allowed on a current list price basis.
D. From 751 hours to 1000 hours, 25% credit will be allowed on a current list price basis.

The credit given to the Distributor for replacement parts or pumps under this warranty is based upon the Distributor's net cost paid Kerr Pumps for such replacement parts or pumps.

5) In the event of a warranty claim under this warranty made within the first 250 hours, **KERR PUMPS**, before any repairs are made, shall be contacted by the Distributor and given the option of having the Distributor either repair or replace the pump.
6) Upon any claim under this warranty, other than a claim wherein **KERR PUMPS** at its option replaced the pump as provided in Paragraph No. 5 hereof, the Distributor will make the necessary repairs an/or replacement, and **KERR PUMPS** shall allow the cost of labor on warranty claims. The labor cost may include travel time not to exceed (8) hours of actual travel time. **KERR PUMPS** will pay surface freight on warranty shipments. After making the necessary repairs and/or replacements, the Distributor will bill the customer for the full amount due for the repair. Thereafter, the Distributor will submit the warranty claim form provided by **KERR PUMPS** to the **KERR PUMPS** Home Office for consideration. In the event the warranty claim is honored by **KERR PUMPS** a Credit Memorandum will be issued to the Distributor in the amount determined by the table in Paragraph No. 4 hereof. Thereafter, the customer's invoice will be credited by the Distributor in the same percentage allowed the Distributor by **KERR PUMPS**.

   If requested by **KERR PUMPS** the purchaser or the Distributor shall return the alleged defective product to **KERR PUMPS** factory, freight prepaid, for examination and testing. If **KERR PUMPS** determines the product is defective **KERR PUMPS** will either repair or replace such product with a like of **KERR PUMPS** manufacture, f.o.b. to the Distributor or allow the Distributor credit to an amount equal to the invoiced value of the defective product. The responsibility of **KERR PUMPS** is limited to the repairing or replacing defective material manufactured by it, provided **KERR PUMPS** examination discloses to its satisfaction that such material has not been altered or repaired, other than by **KERR PUMPS** approved procedures, subject to misuse, improper maintenance, negligence or accident. **KERR PUMPS** will not be responsible for loss of liquid or for damage of any kind, or from any cause, to any person or property of any person, or for loss of revenue of profit, or for any other special incidental or consequential damages.

7) The warranty applies only to new **KERR PUMPS**. The Company specifically excludes from this warranty the following.
   A. All pistons, piston rubbers, liners, plungers, valves, plunger packing, valve springs, seals gaskets, and corrosion and/or erosion damage caused by the fluid handled by the Company's pump.
   B. In addition, after the expiration of the pump warranty all replacement parts are no longer in warranty.

8) In extreme cases where in the opinion of **KERR PUMPS**, if a pump has been misused or is being misused, **KERR PUMPS** reserves the option to offer to redeem the pump from the purchaser. Should the purchaser refuse to allow the pump to be redeemed and chooses to continue improper operation, the warranty will be void.

9) Any parts or equipment which **KERR PUMPS** supplies and does not manufacture shall be subject only to the warranties of **KERR PUMPS** vendors to the extent **KERR PUMPS** can enforce such warranties.

10) Any repairs to, alterations of, or work done on alleged defective products without **KERR PUMPS** specific written authorization shall void **KERR PUMPS** warranty applicable thereto.

11) Any action for breach of warranty or other action under this agreement must be commenced within (1) year after such cause of action arises.

This limited warranty is in lieu of all other warranties, expressed or implied, including any implied warranty or merchantability or fitness.

KERR TROUBLE SHOOTER GUIDE

	REASON OR SERVICE NEEDED
Unusual pounding, knocking broken valve spring	Insufficient fluid at high speed. Check to see if the suction line is the proper size and is not constricted, trash in line, valve partly opened, etc. There is also a possibility of gas in the fluid causing the roughness.
Loss of pressure or volume	Also above. Foreign matter may be holding valves open. Worn valves. Broken springs.
Consistent, rhythmic knock	Improper bearing adjustment. Worn bearings or connecting rods. NOTE: Valve noise is common and normal in high-speed pumps. It should not cause concern unless it becomes erratic.
Packing failure (Excessive)	Improper installation. Improper type lubrication. Incorrect type packing for particular installation. (Contact **Kerr Pumps** if in doubt) Excessively worn plungers.
Abnormal wear of fluid end parts	Abrasive or corrosive fluid.
Abnormal wear of power end parts	Lack of oil, overload on pump, foreign matter in oil.
Heat in power end	A new pump will run hot for a short period (2 or 3 days). Check above for persistent heating. Pump will operate near 140˚ F. under average conditions. Check for air in pump by bleeding at cover caps. Too much spring tension Reciprocating pumps have very limited pick up, check installation section.

INSTALLATION INSTRUCTIONS (SEE ILLUSTRATION)

The importance of proper installation cannot be overstressed. As the reciprocating pump is almost unable to lift fluid, proper suction flooding is a must. This is the First step toward satisfactory operation.

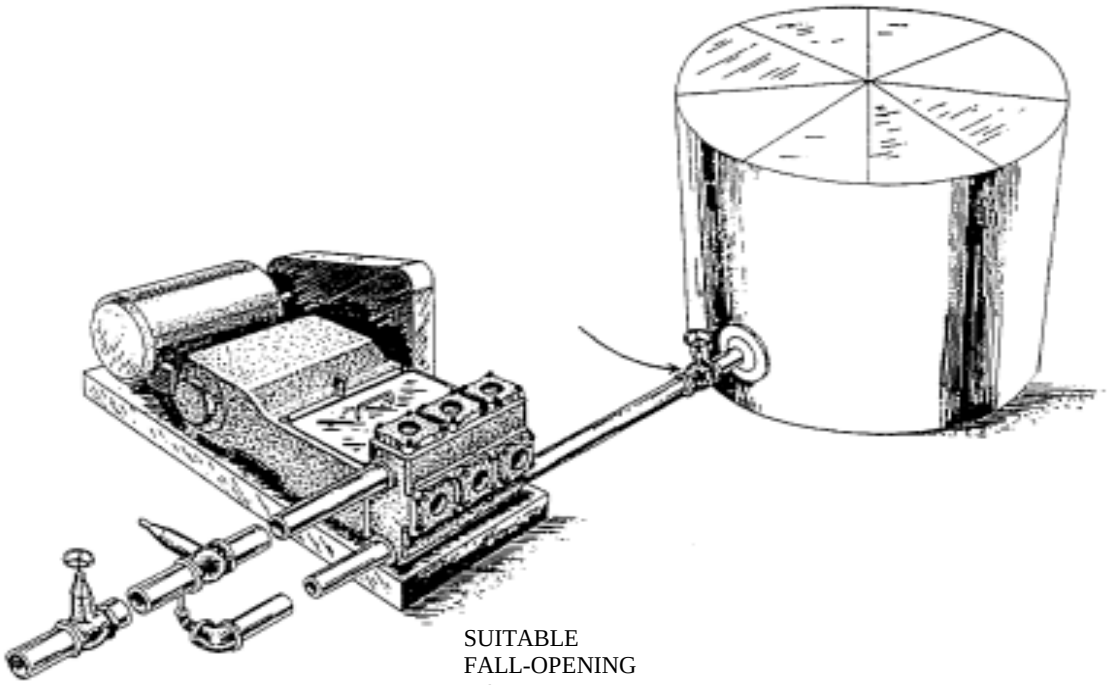
The **Kerr Pumps** Engineering Service will gladly advise you in your installation problems. As almost every installation varies, you cannot exercise too much care in making certain your installation is proper.

Before Starting The Pump, read carefully the maintenance section in the following pages.

To start the pump, open the suction line valve and permit the intake chamber to fill on the pump. Air may be bled off by opening the valve covers slightly until there is a constant fluid flow. After bleeding, open the discharge line valve and start the pump. Roughness may occur from cavitation (air in line) or from starvation (lack of fluid). Eliminate these troubles before permitting continuous operation.

RECOMMENDED INSTALLATION OF KERR PUMPS
FOR BEST RESULTS

(A)	PRESSURE RELIEF VALVE (OPTIONAL)
(B)	BY-PASSED FLUID SHOULD BE PIPED BACK IN SUCTION SUPPLY TANK WHEN POSSIBLE
(C)	USE FLEXIBLE HOSE IN DISCHARGE LINE WHEN POSSIBLE
(D)	DISCHARGE SHUT-OFF VALVE (OPTIONAL-USED FOR TOTAL SHUT-DOWN OR SERVICE ONLY)
(E)	DISCHARGE AND SUCTION ON EITHER SIDE OF FLUID END ON ALL MODELS.
(F)	PULSATION "DAMPENERS" MAY BE USED IN EITHER THE SUCTION OR DISCHARGE PIPING OR BOTH. DISCHARGE DAMPENERS SHOULD BE CAPABLE OF HANDLING PUMP DISCHARGE MAXIMUM PRESSURE



SUITABLE
FALL-OPENING
VALVE

AS A GENERAL RULE, FLUID LEVEL MUST BE HIGHER THAN THE PUMP FLUID END AS PLUNGER PUMPS CANNOT "LIFT" FLUID. ABOUT 10 FEET OF HEAD IS A GOOD "RULE OF THUMB".

INSTALL PUMP AS CLOSE TO TANK AS POSSIBLE

CAUTION SHOULD BE TAKEN TO KEEP FITTINGS OUT OF THE SUCTION AND DISCHARGE PIPING AS THESE WILL RESULT IN POOR PERFORMANCE. EACH 90-DEGREE TURN IN THESE LINES RESULTS IN GREAT LOSS OF PUMPING EFFICIENCY.

PREVENTIVE MAINTENANCE

DAILY

1. Check crankcase oil level.
   Synthetic Lubricant:
   AGMA Grade (ASTM D 2422): 4 EP
   SAW Viscosity Grade (J306-8): 75W-90
   ISO Viscosity Grade: 150
   Viscosity in SSU @ 100 F: 625-765

CAPACITIES (APPROXIMATE)

KD-1250	2 qts.	KT-3350	16 qts.
KJ-2250	3 qts.	KT-3400	16 qts.
KM-3250	4 qts.	KB-3500	20 qts.
KZ-3150	2 qts. Use 30 wt non-detergent motor oil	KA-3500	36 qts.
KM-3300	4 qts.	KSB-6400	36 qts.
KP-3300	12 qts.	KSB-6500	36 qts.
		KCP-6300	24 qts.

2. If pump has lubricating facilities for stuffing boxes, check level of lubricant.
3. Maintain packing gland tension on packing (Do not over-tighten)
4. Visually inspect pump for apparent trouble.
5. Keep the pump clean.

MONTHLY

1. Drain and refill crankcase. It is recommended that oil be changed after the first week of operation.
2. Wash oil filler cap in kerosene.
3. Check valves for excessive wear, broken or bent springs, etc.
4. Check crankshaft bearings for endplay. (See section on crankshaft)
5. Keep all nuts, studs, etc. tight.
6. Check valve covers for leaks.
7. Check all seals and gaskets for leaks

GENERAL

Replace any work part before its eventual failure. Use the following instructions for removal and replacement of parts. Don't hesitate to call on **Kerr Pumps** for help if necessary.

SERVICE PROCEDURES (ALL MODELS)

1. VALVES (Wing-guided type):

   A. Discharge Valves: The discharge valve and seat can be exposed by first removing the discharge valve cover cap. Once the discharge cover cap has been removed you may lift out the discharge valve spring and the discharge valve. The valve seat will be held in place by a taper fit and must be "pulled" with an appropriate valve-pulling tool (available from the **Kerr Pumps** Dealers). Once the valve and seat have been removed they should be resurfaced or replaced if badly worn. To replace the discharge valve, first clean and inspect the seat bore for washout defects and then drop the seat into the bore. Replace the valve into the seat and strike the top of the valve a couple of good blows utilizing a brass bar and hammer to seat the valve seat in the fluid end valve bore. Replace the valve spring and cover cap after inspecting the spring and the seal of the cover cap.

   B. Suction Valves: The suction valves are located in the chamber directly behind the suction or end valve cover caps. The suction valves are serviced in the identical manner as the discharge valves. Note: Discharge valves must be removed prior to any removal of the suction valves.

Service Procedure for KZ-3150 Valves

   C. DISCHARGE VALVE: The discharge valve and seat can be exposed by first removing the discharge valve cover plate. Once the discharge cover cap has been removed you may lift out the discharge valve spring, discharge valve and valve seat. Once the valve and seat have been removed they should be replaced if badly worn. To replace discharge valve, first clean and inspect the seat bore for wash out defects and then drop the seat into the bore. Replace valve in seat then valve spring and cover cap, always-inspecting o'ring seals between seats and cover caps.

   D. SUCTION VALVE: The suction valves are located in the chamber directly below the discharge valve seat. The suction valves are serviced in the identical manner as the discharge valves.

2. VALVES (Disc-type): All disc-type valves are exposed for removal in a similar manner as the wing-guided valves. Instead of removing the valve body; the upper portion of the valve is removed by removal of the valve capscrew, spring retainer, valve spring, and valve spacer sleeve. The valve seat is then "pulled" from the fluid-end utilizing an authorized Kerr Valve Puller. Note: In all **Kerr Pumps** with disc-type valves the discharge and suction valves are identical.

3. VALVES (Ball & Seat): In **Kerr Pumps** with block/billet type fluid-ends the valves are ball and seat design. These are exposed for removal/inspection by removal of the appropriate valve cover. The flat seats are kept in place by a screw-in valve retainer that can be best removed with a Kerr Valve Wrench made for the appropriate pump. Springs are normally incorporated with the discharge valves while the suction valves operate with a "free ball". A copper washer/gasket is used under all valve seats for a seal. When installing or removing a flat type valve seat a good "rap" on top of the valve wrench will "seat/unseat" the seat and copper gasket prior final tightening or removal. Failure to "seat" the valve seat in this manner can result in the "washing out" of the fluid-end. For *pressurized suction*, valves will need to be spring loaded. Call **Kerr Pumps** for this change.

4. PLUNGERS: Following the removal of the suction valve, the plunger may be removed by breaking the union between the plunger and pony rod and forcing the plunger out the back of the fluid-end. Loosening the packing nut/gland will facilitate the removal of the plunger. The reverse of this procedure is used to install a plunger. Lubrication and some slight force may be used to pass plunger through the packing. Always retighten the plunger and pony rod union periodically following the removal of the plunger to insure it is securely made up and will not vibrate loose.

5. PLUNGER PACKING: This manual includes illustrations of the packing sets for each model pump. Generally, once the plunger has been removed from the pump, the packing can be exposed for removal by completely removing whatever device is used to tighten the packing (i.e. the packing or stuffing box nut or gland). There will be various amounts of metal rings and packing components depending upon the type of packing and the model of pump (refer to appropriate illustration or chart). After the removal of all rings and equipment from the stuffing box; thoroughly clean it and inspect for damage, which might keep the new packing from working properly. If the stuffing box is in satisfactory condition, install the new packing as per the appropriate illustration. It is a good idea to lubricate new packing with a light oil prior to installation. Most of the standard packing used in **Kerr Pumps** should be tightened with the original equipment-packing wrench while the pump is running under normal operating pressure. After a two or three hour run-in, check the packing for tightness and re-adjust as necessary. Packing should be checked for tightness on a periodic basis, but it is not a good idea to attempt to periodically tighten the packing as part of routine maintenance. This tends to "wear out" the packing prematurely. When the packing leaks in an excessive amount it should be replaced. There is no value in constantly "re-tightening" leaking packing.

   If your pump is equipped with optional "spring loaded" packing, there is no adjustment in this equipment during its operational life. The stuffing box nut is initially tightened as much as possible and there is no further adjustment. Note: In all cases the spring goes in the stuffing box before the packing rings.

When using the optional Kevlar or Teflon packing, be sure to rotate the "splits" so that none are "aligned" to insure that the packing holds properly. Normally, this packing is not lubricated and requires less tension on the stuffing box nut during operation.

CAUTION: An "airtight" seal is not desirable with this plunger packing. Some slight dripage is desirable during operation. Attempts to tighten packing until it completely "seals off" will result in premature failure from too much friction. The Kevlar & Teflon packing must be allowed to drip a small amount to assure normal life.

6. PONY ROD and PONY ROD PACKING: Kerr Pumps use two pony rod sealing arrangements, models KD-1250, KJ-2250, KM-3250 and KCP-6300 use a screw in seal gland, all other models use a bolt in seal gland, these glands use press in oil seals with snap ring retainers. Some Bolt in gland use adjustable packing arrangements with bolt in or screw in followers to adjust packing. By unscrewing plunger from pony rod a gap may be facilitated to allow the removal of the various sealing arrangements. A special wrench will be needed to remove and replace pony rod to crosshead. (This wrench is available from **Kerr Dealers**) All pony rods have a jam nut to align tighten pony rod to crosshead, care must be exercised in installing new seal on pony rod not to damage it.

7. DISASSEMBLY OF POWER END. (CAUTION: Prior to disassembly of any power end, the plunger, pony rod, and pony rod seal housing must be removed.) Expose the crankshaft and connecting rods by removing the pan cover. Connecting rod caps may now be removed and the connecting rod and crosshead should be shoved all the way to the rear (toward the fluid end) to facilitate crankshaft removal out either side as convenient. The connecting rods and crossheads may now be taken out the front cavity exposed by removing the crankshaft. Connecting rods may be removed from the crosshead by loosening the setscrew and driving out the wrist pin from the crosshead. A bronze bushing is used in the rod it may be driven out of the rod and replaced with a new bushing. Reassembly is the reverse of the above outlined sequence with the following considerations for "fits" or tolerance:

    A. General: All Kerr components are machined on modern production machine tools and are of the same specifications and close tolerances you would expect in a modern automobile engine. It must be pointed out that at top speed (350 to 400 RPM) your pump will not even be approaching idle speed for a gasoline engine so "field fits" are possible and practical when making repairs and replacements away from the factory. All procedures outlined below are possible with only hand tools and absolutely no instruments, special tools, or gauges are needed.

    B. Connecting rod and wrist pin: Proper fit will find the wrist pin turning freely in its bore in the connecting rod, but it should have no "wobble" that is discernable up and down the main axis of the connecting rod. This looseness in the

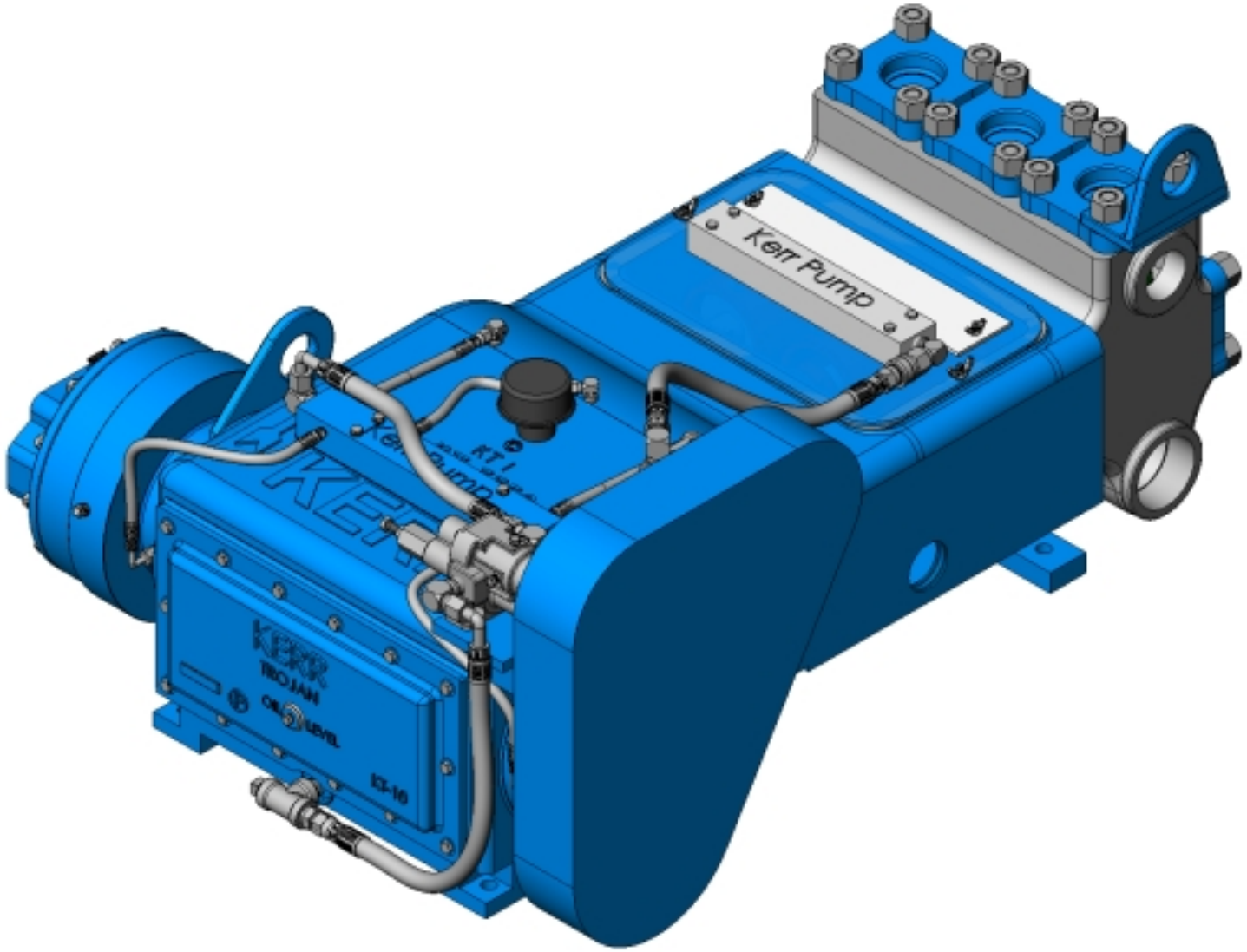
wrist pin fit is the most probable cause of “knocking” which is traceable to the power end of most all pumps. The only solution for loose fitting wrist pins is to discard the connecting rod wrist pin bushing and replace with a new one. If any wear is visible on the wrist pin it should always be replaced.

C. Crankshaft End Play and Lateral adjustments: Adjustment of the Taper Roller bearings used in all Kerr Pumps is accomplished by removing or adding shims under the bearing housing. Shims are taken out or added until the crankshaft (without connecting rods) will turn freely, but with no endplay felt when attempting to pull or push the jackshaft end of the crankshaft along its long axis. Some lateral adjustment is possible by removing shims from one side of the crankshaft and adding them to the opposite side. (Note: Lateral adjustment is the “centering” of the crankshaft in the power frame housing.)

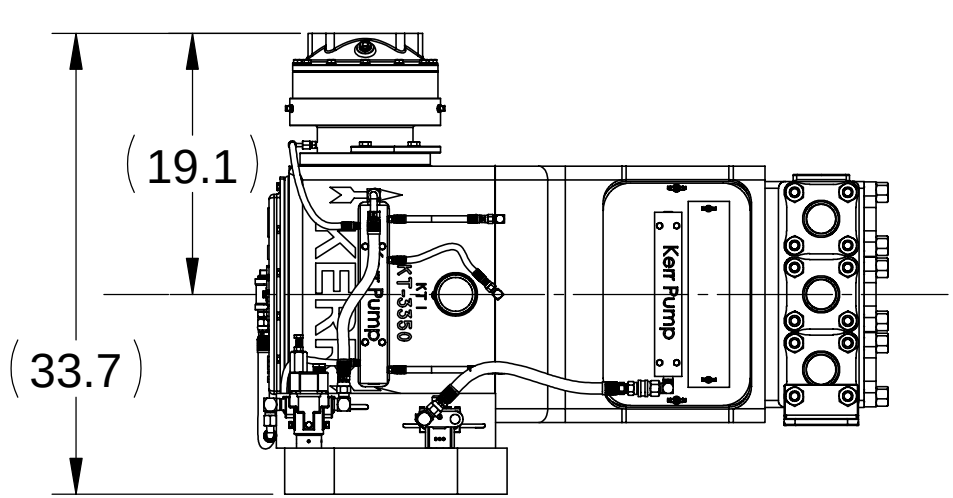
D. Connecting Rod to Crankshaft fitting: Factory bored connecting rods will normally fit the standard crankshaft journal just by bolting the cap on the rod with the standard rod shims being used. If the caps do require adjustment this is accomplished by removing or adding various thicknesses of rod shims. The standard connecting rod shim used on all Kerr Pumps is 1/32” thick and is comprised of .002” laminates, which can be “pealed “ off separately. Proper fit of the connecting rod will allow the pump crankshaft to be rotated while not allowing in-and-out slack in the connecting rod along its long or main axis. A well-fitted rod will have none of the in-and-out slack, but should be free enough to be moved from side to side on the rod journal. This insures the rod not being too tight. A point of caution when installing the connecting rod assembly in the pump is to make certain the oil holes in the rod are “UP” and not toward the bottom of the pump. This will result in lubrication failure in these parts and the pump will fail in a short period of time. An additionally important step is to make sure that the rod cap is bolted back on the rod as it came off. The rod and cap carry a “mark” or “number” which allows you to match them back properly. Failure to do this will cause the rod not to fit the journal for which it was made.

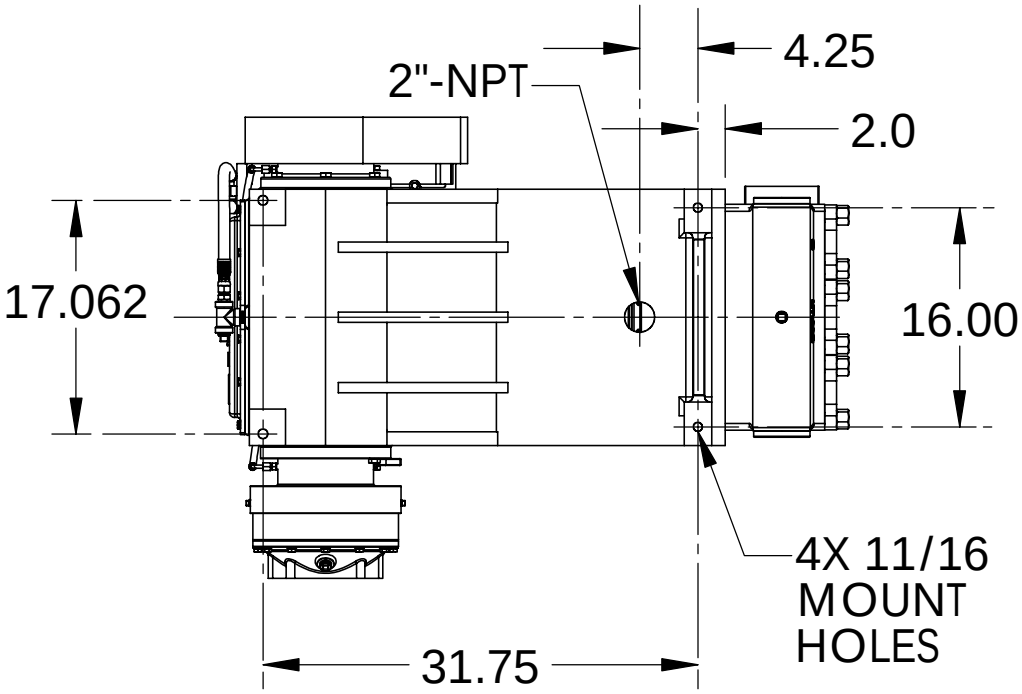
8. Power End/Fluid End Connection: A common misconception is that there is some form of fluid seal between the power end and the fluid end. This is false. The fluid end is merely bolted to the power frame. It can be removed by breaking the plunger connection, backing off the packing nut or gland, removing the various fluid end bolts, and sliding the entire fluid end off the power frame. Corrosion may tend to seize the two components together making their separation difficult in some isolated cases. On models KP-3300 and KT-3350 the bolted in stuffing box assemblies must be removed prior to removal of the entire fluid end. They are held in place by four studs each. On all other units the stuffing boxes can be left intact. On the remaining pumps (with the exception KD-1250B, KJ-2250B, KM-3250B, and KCP-6300) the stuffing boxes are held in place in the fluid end by a friction or “press” fit. They should be removed with a hydraulic press if possible. These press-in type stuffing boxes carry a gasket and/or an o-ring to insure a good seal. The boxes on the KD-1250B, KJ-2250B, KM-3250B, and KCP-6300 are screw-in type and carry only a copper gasket.

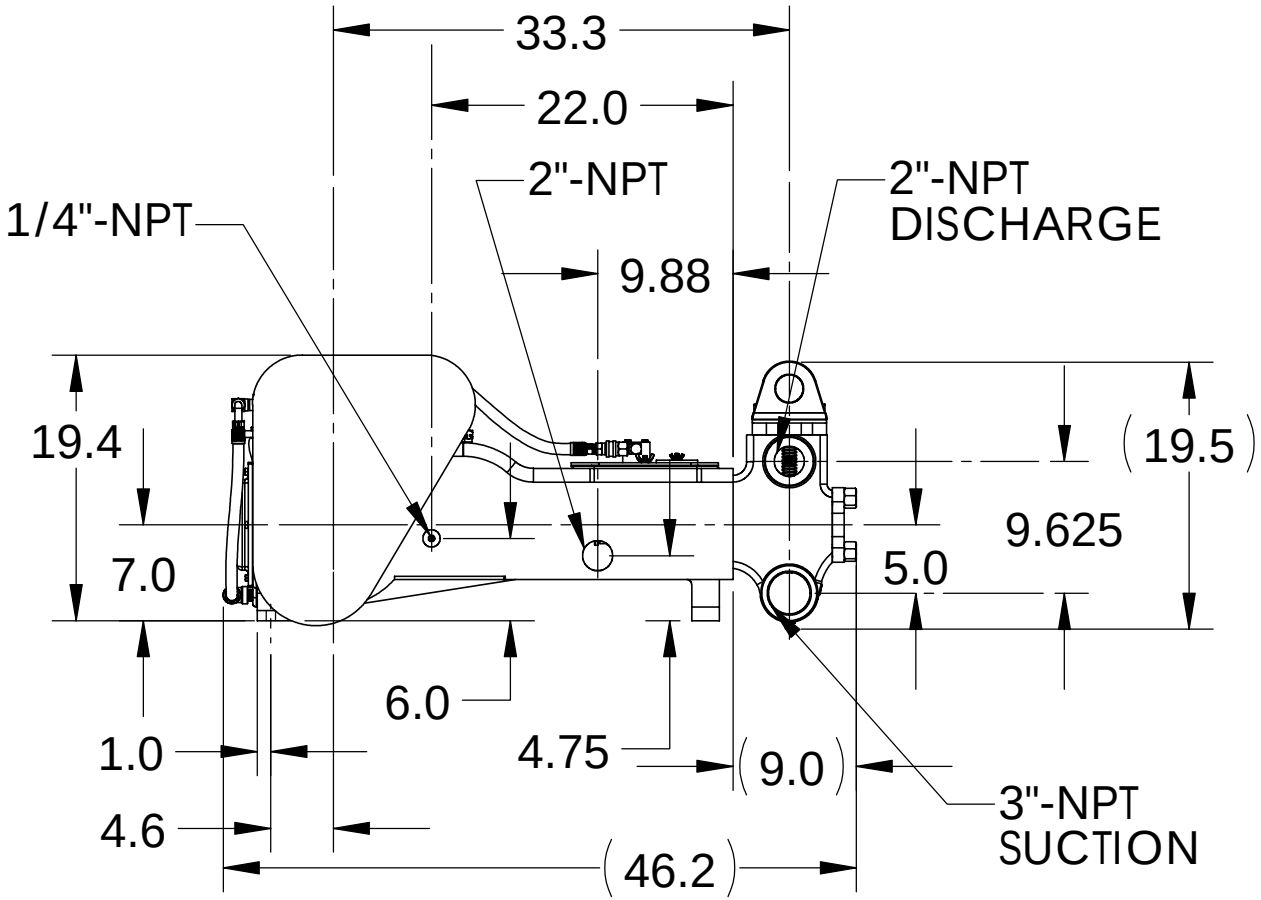
Kerr Pump Maintenance Schedule for Piston Type (PT) Pumps	Daily or 8 Hrs	Weekly or 40 Hrs	Monthly or 200 Hrs	Quarterly or 500 Hrs	Semi-Annual or 1000 Hrs	Yearly or 2000 Hrs
Check Oil Level in Pump	Visual Inspection	Visual Inspection	Service			
Check Oil Level in Planetary Gear	Visual Inspection	Visual Inspection	Service			
Check for Water or Bentonite in Gear Box	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection
Check Piston Chamber for Leaking Pistons	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection
Check Recovery Tank for Bentonite	Visual Inspection	Visual Inspection	Service			
Check Piston Cooling Pump for Proper Operation	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection
Flush Fluid End	Service	Service	Service	Service	Service	Service
Check Pony Rod Seals	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Service	
Check and Replace if Necessary Piston Cups		Visual Inspection	Visual Inspection	Visual Inspection	Service	
Check and Replace if Necessary Valve Inserts		Visual Inspection	Visual Inspection	Visual Inspection	Service	
Check and Replace if Necessary Valves and Seats		Visual Inspection	Visual Inspection	Visual Inspection	Service	
Check and Replace if Necessary Liners		Visual Inspection	Visual Inspection	Visual Inspection	Service	
Check Rod Bearings			Visual Inspection	Visual Inspection	Visual Inspection	Service
Check Pony Rods	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection
Check Belts	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Visual Inspection	Service

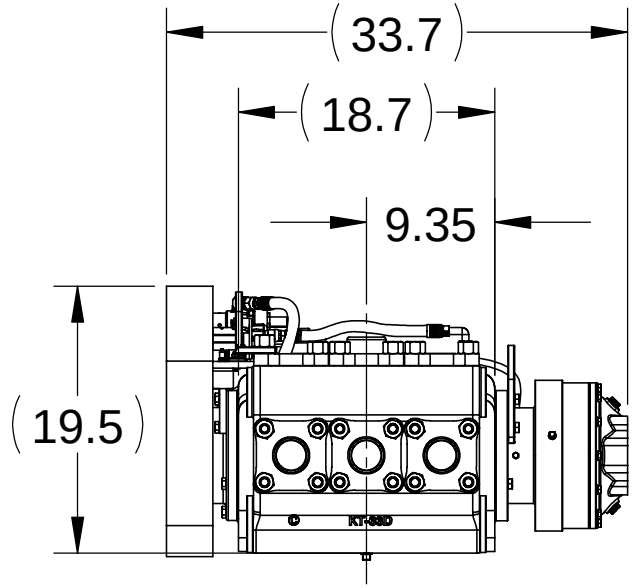


KT-3350PT/KT-3400PT

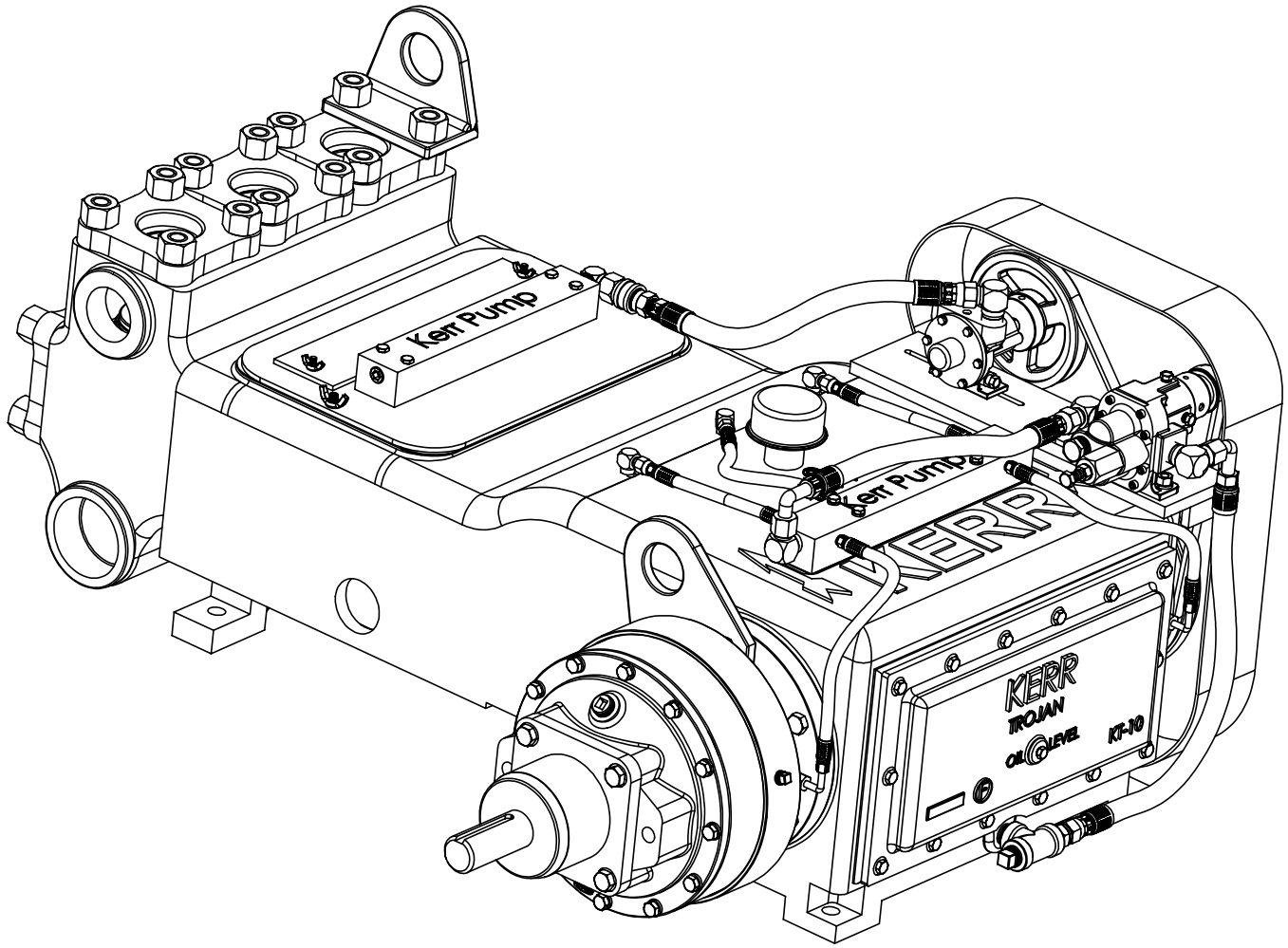




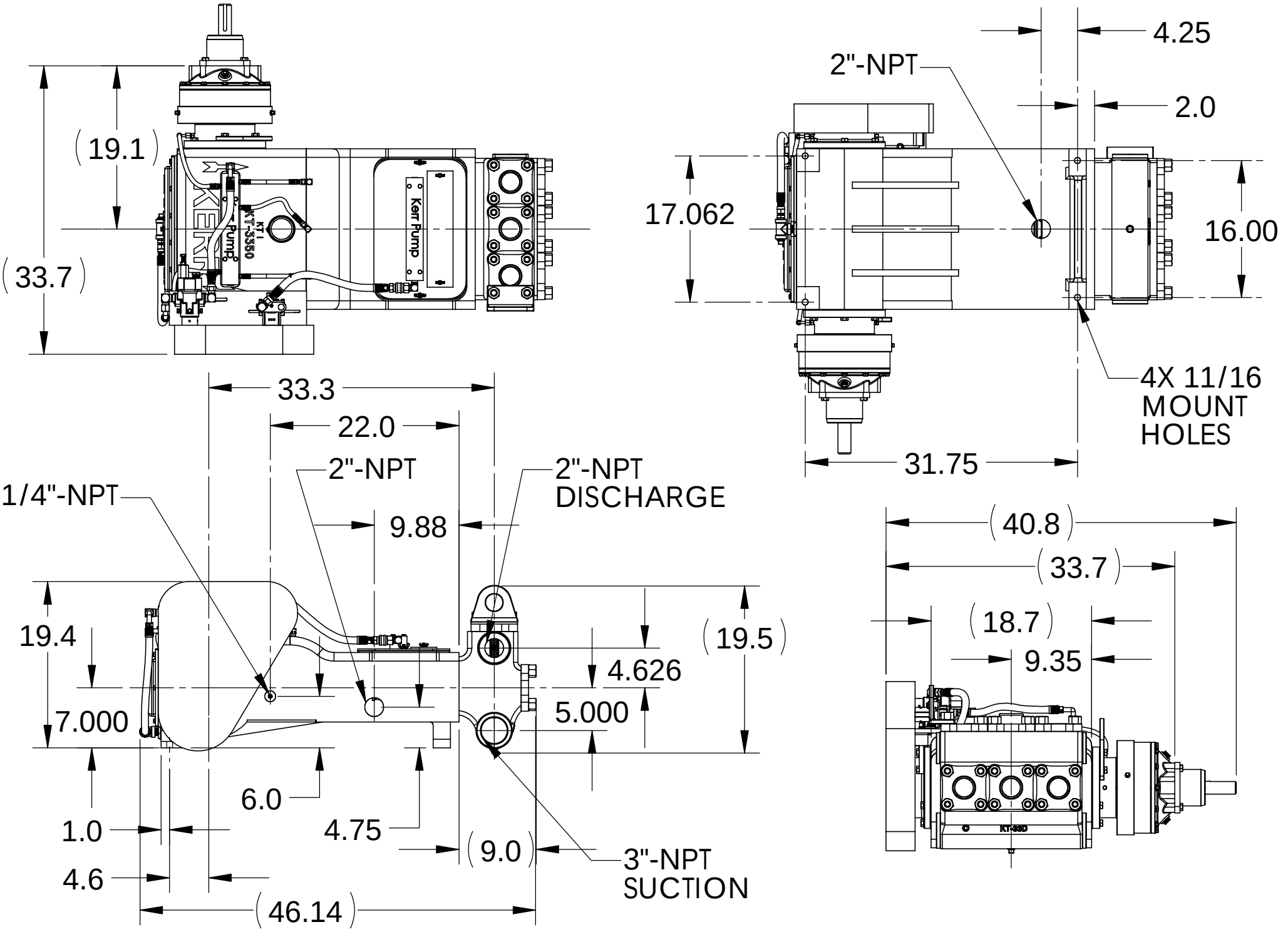




GENERAL DIMENSIONS FOR KT-3350PT-3500

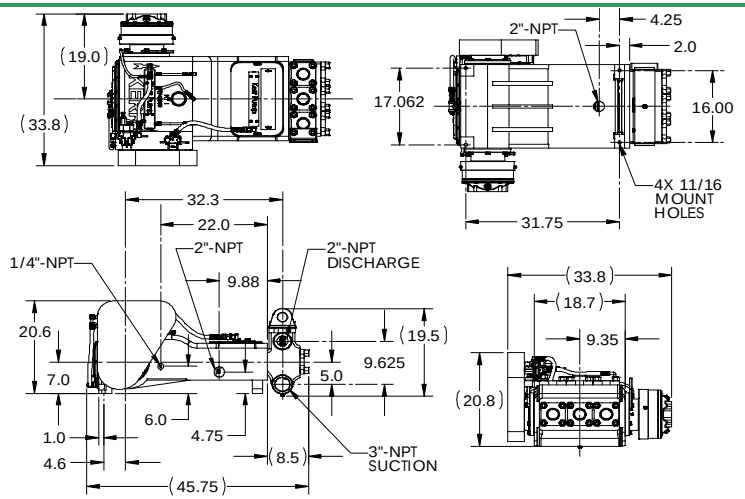


KT-3350PT/KT-3400PT WITH DRIVE ASSEMBLY



GENERAL DIMENSIONS FOR KT-3350PT/KT-3400PT (WITH DRIVE ASSEMBLY)

Kerr KT-3350PT-3000



GENERAL DIMENSIONS FOR KT-3350PT

SPECIFICATIONS

No. of Pistons: 3

Stroke Length: 3.500"

Crankshaft:
Extension Dia. 2 15/16"
Keyway 3/4" x 3/8" or
Splined for Hyd Drive

Oil Capacity: 16 Quarts or
15.4 Liters

Pump Weight: 1200 Pounds

Connections:
3" FNPT (Suction)
2" FNPT(Dischrg)

Std Material for Fluid End:
Ductile Iron

FEATURES

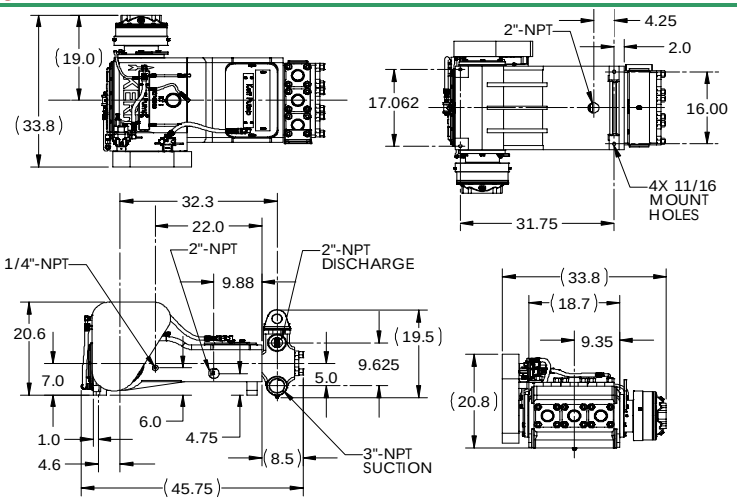
Triplex Design
Heat Treated and Stress Relieved Crankshaft
Optional 8 Point Pressurized Crankcase Lubrication System
Optional Splined Crankshaft Designed to Bolt to Existing Hydraulic Drive
High Strength, Heat Treated Connecting Rods with Replaceable Bearings
High Speed, High Torque Tapered Roller Bearing (Continuous Duty Cycle)
Optional Cooling System Engineered to Extend the Life of the Pistons and Liners
New Longer Life Heat Treated and Hardened Polyurethane Inserted Valves and Seats

Piston DIA. INCHES	PSI	DISP GAL PER REV	DISPLACEMENT																	
			100 RPM		150 RPM		200 RPM		250 RPM		300 RPM		375 RPM		400 RPM		450 RPM		500 RPM	
			GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD
3.000"	1000	0.3213	32.1	1102	48.2	1653	64.3	2204	80.3	2755	96.4	3306	120.5	4133	128.5	4408	144.6	4960	160.7	5511
Max. Brake Horsepower Required			21		31		42		52		62		78		83		94		104	

Technical Notes:

1 Volumes indicated are based on 100% Volumetric Efficiency.
2 Horsepower required based on 90% Mechanical Efficiency.
3 Ratings are nominal speeds and pressures. They may vary with Kerr Pumps' written approval.

Kerr KT-3350PT-3500



GENERAL DIMENSIONS FOR KT-3350PT

SPECIFICATIONS

No. of Pistons: 3

Stroke Length: 3.500"

Crankshaft:
Extension Dia. 2 15/16"
Keyway 3/4" x 3/8" or
Splined for Hyd Drive

Oil Capacity: 16 Quarts or
15.4 Liters

Pump Weight: 1200 Pounds

Connections:
3" FNPT (Suction)
2" FNPT(Dischrg)

Std Material for Fluid End:
Ductile Iron

FEATURES

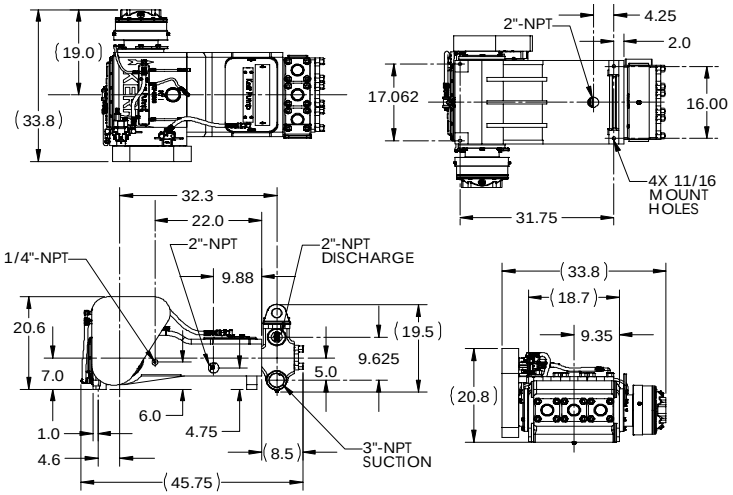
Triplex Design
Heat Treated and Stress Relieved Crankshaft
Optional 8 Point Pressurized Crankcase Lubrication System
Optional Splined Crankshaft Designed to Bolt to Existing Hydraulic Drive
High Strength, Heat Treated Connecting Rods with Replaceable Bearings
High Speed, High Torque Tapered Roller Bearing (Continuous Duty Cycle)
Optional Cooling System Engineered to Extend the Life of the Pistons and Liners
New Longer Life Heat Treated and Hardened Polyurethane Inserted Valves and Seats

Piston DIA. INCHES	PSI	DISP GAL PER REV	DISPLACEMENT																	
			100 RPM		150 RPM		200 RPM		250 RPM		300 RPM		375 RPM		400 RPM		450 RPM		500 RPM	
			GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD
3.500"	1000	0.4373	43.7	1500	65.6	2250	87.5	3000	109.3	3750	131.2	4500	164.0	5625	174.9	6000	196.8	6750	218.7	7500
Max. Brake Horsepower Required			28		43		57		71		85		106		113		128		142	

Technical Notes:

1 Volumes indicated are based on 100% Volumetric Efficiency.
2 Horsepower required based on 90% Mechanical Efficiency.
3 Ratings are nominal speeds and pressures. They may vary with Kerr Pumps' written approval.

Kerr KT-3350PT-4000



GENERAL DIMENSIONS FOR KT-3350PT

SPECIFICATIONS

No. of Pistons: 3

Stroke Length: 3.500"

Crankshaft:
Extension Dia. 2 15/16"
Keyway 3/4" x 3/8" or
Splined for Hyd Drive

Oil Capacity: 16 Quarts or
15.4 Liters

Pump Weight: 1200 Pounds

Connections:
3" FNPT (Suction)
2" FNPT(Dischrg)

Std Material for Fluid End:
Ductile Iron

FEATURES

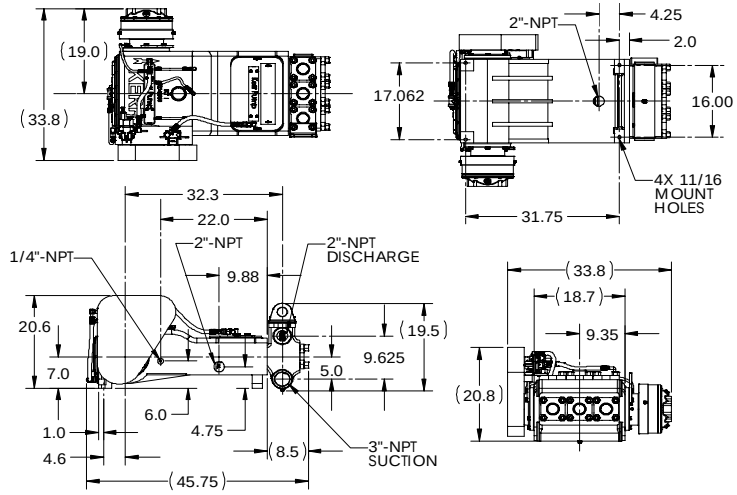
Triplex Design
Heat Treated and Stress Relieved Crankshaft
Optional 8 Point Pressurized Crankcase Lubrication System
Optional Splined Crankshaft Designed to Bolt to Existing Hydraulic Drive
High Strength, Heat Treated Connecting Rods with Replaceable Bearings
High Speed, High Torque Tapered Roller Bearing (Continuous Duty Cycle)
Optional Cooling System Engineered to Extend the Life of the Pistons and Liners
New Longer Life Heat Treated and Hardened Polyurethane Inserted Valves and Seats

Piston DIA. INCHES	PSI	DISP GAL PER REV	DISPLACEMENT																	
			100 RPM		150 RPM		200 RPM		250 RPM		300 RPM		375 RPM		400 RPM		450 RPM		500 RPM	
			GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD
4.000"	1000	0.5712	57.1	1959	85.7	2939	114.2	3918	142.8	4898	171.4	5877	214.2	7347	228.5	7837	257.0	8816	285.6	9796
Max. Brake Horsepower Required			37		56		74		93		111		139		148		167		185	

Technical Notes:

1 Volumes indicated are based on 100% Volumetric Efficiency.
2 Horsepower required based on 90% Mechanical Efficiency.
3 Ratings are nominal speeds and pressures. They may vary with Kerr Pumps' written approval.

Kerr KT-3400PT-4000



GENERAL DIMENSIONS FOR KT-3350PT

SPECIFICATIONS

No. of Pistons: 3

Stroke Length: 4.000"

Crankshaft:
- Extension Dia. 2 15/16"
- Keyway 3/4" x 3/8" or
- Splined for Hyd Drive

Oil Capacity: 16 Quarts or 15.4 Liters

Pump Weight: 1200 Pounds

Connections:
- 3" FNPT (Suction)
- 2" FNPT(Dischrg)

Std Material for Fluid End:
- Ductile Iron

FEATURES

Triplex Design
Heat Treated and Stress Relieved Crankshaft
Optional 8 Point Pressurized Crankcase Lubrication System
Optional Splined Crankshaft Designed to Bolt to Existing Hydraulic Drive
High Strength, Heat Treated Connecting Rods with Replaceable Bearings
High Speed, High Torque Tapered Roller Bearing (Continuous Duty Cycle)
Optional Cooling System Engineered to Extend the Life of the Pistons and Liners
New Longer Life Heat Treated and Hardened Polyurethane Inserted Valves and Seats

Piston DIA. INCHES	PSI	DISP GAL PER REV	DISPLACEMENT																	
			100 RPM		150 RPM		200 RPM		250 RPM		300 RPM		350 RPM		400 RPM		450 RPM		500 RPM	
			GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD	GPM	BPD
4.000"	1000	0.6528	65.3	2239	97.9	3359	130.6	4478	163.2	5598	195.8	6717	228.5	7837	261.1	8956	293.8	10076	326.4	11195
Max. Brake Horsepower Required			42		63		85		106		127		148		169		190		212	

Technical Notes:

1 Volumes indicated are based on 100% Volumetric Efficiency.
2 Horsepower required based on 90% Mechanical Efficiency.
3 Ratings are nominal speeds and pressures. They may vary with Kerr Pumps' written approval.

AP-77T
VALVE INSERT TOOL

How To Put Inserts In Valves
Using Kerr Valve Insert Tool

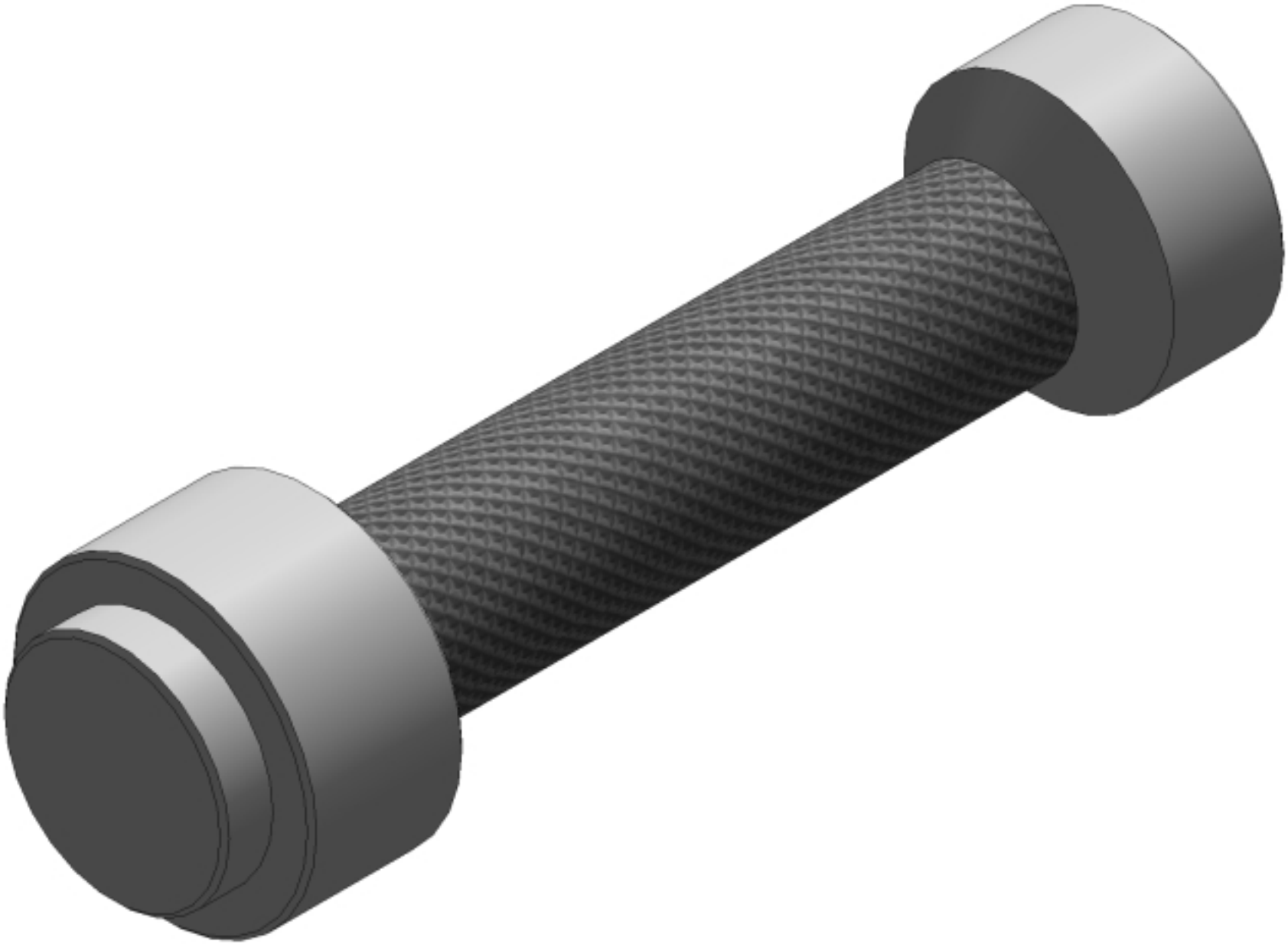
1) Push Valve Insert over valve legs. Hint: (Insert will be more pliable if heated first-- warm to the touch not hot).

2) Put Tool between valve and valve insert with groove against valve.

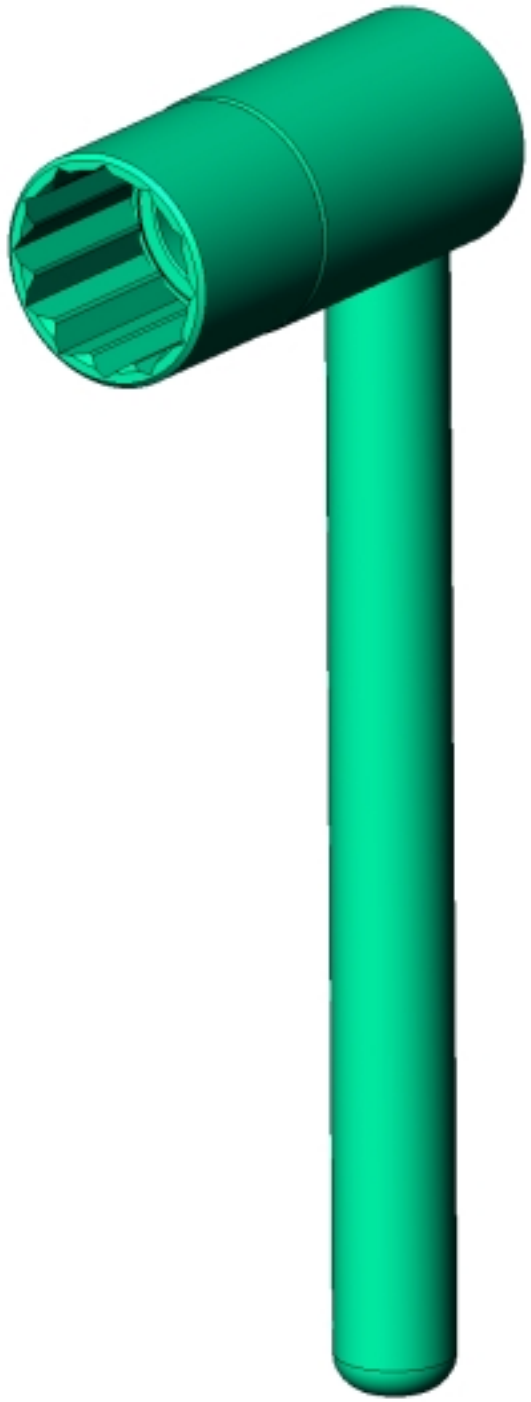
3) Holding Valve insert down with thumb.

4) While holding valve down with thumb, rotate around valve with tool. (Similar to mounting a tire on a rim).

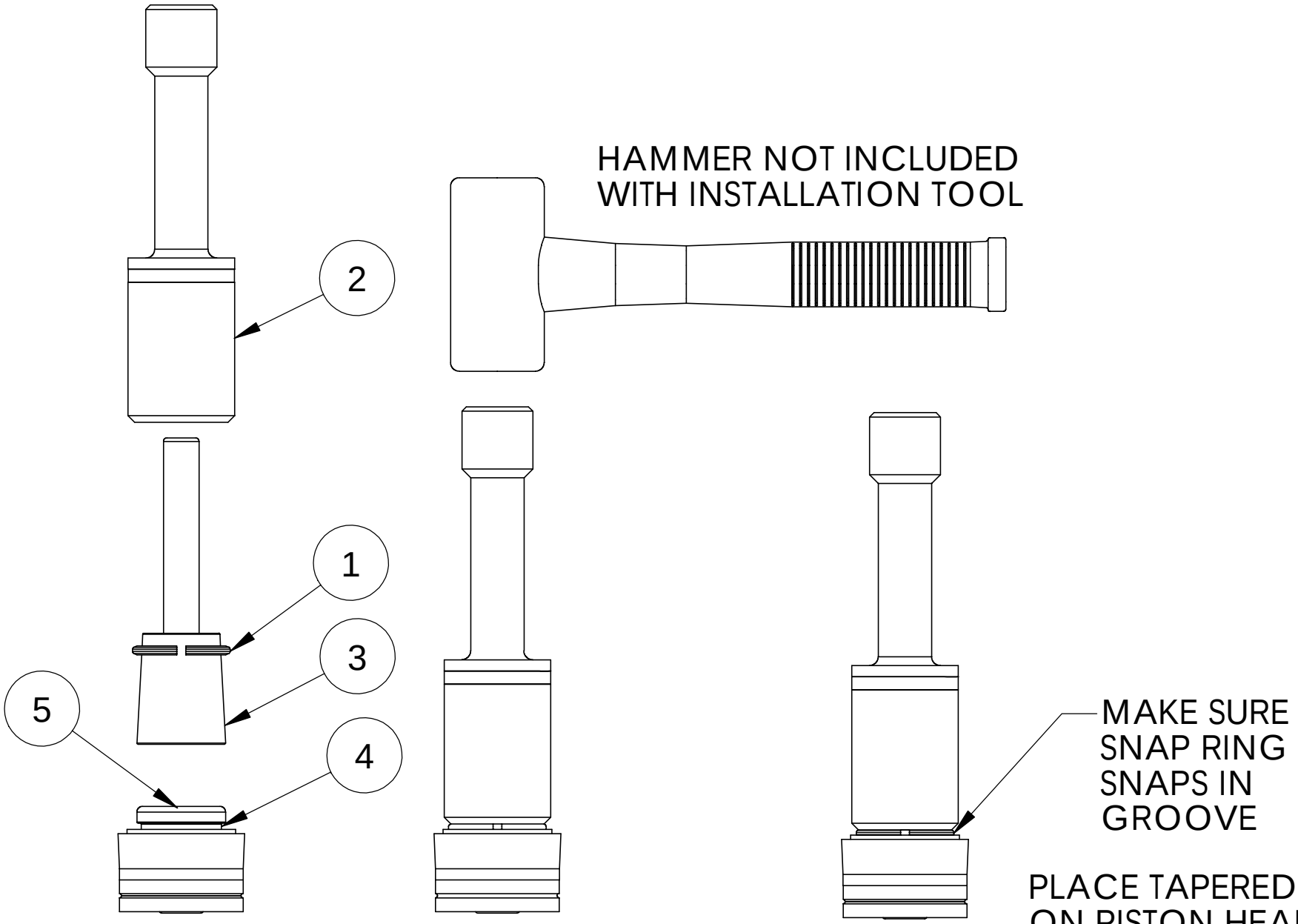
5) Continue rotating around valve with tool until insert is completely in groove.



INSTALLATION TOOL
FOR PONY ROD SEAL
KA-KT-276

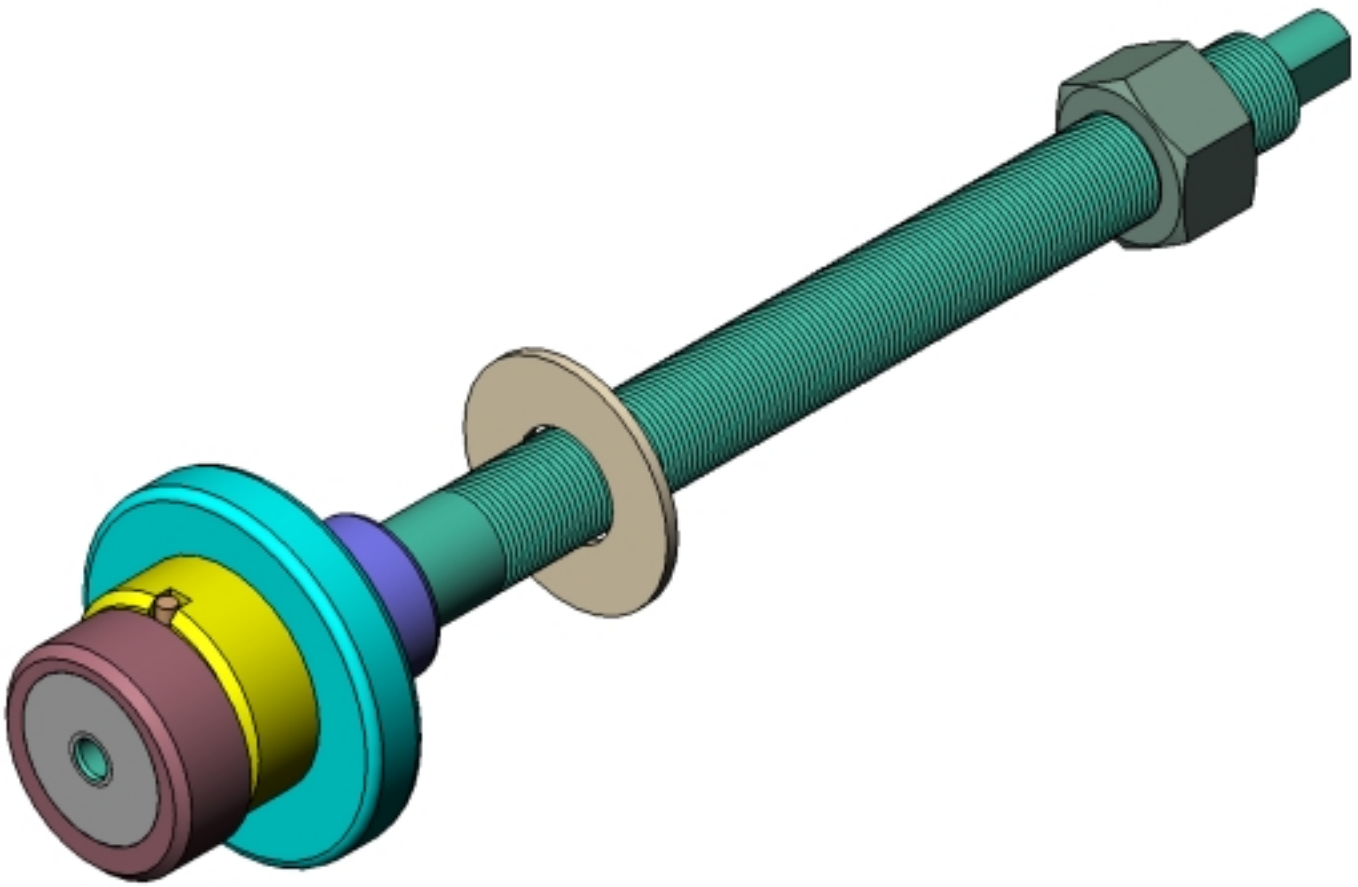


PONY ROD INSTALLATION WRENCH
KA-KT-277



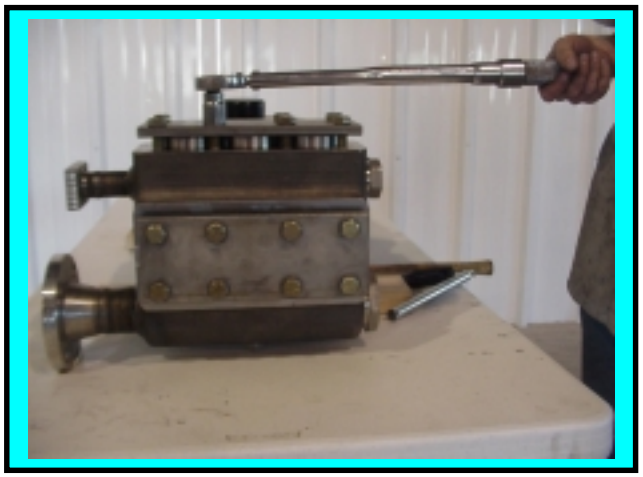
KA-KT-248
PISTON SNAP RING
INSTALLATION TOOL

PLACE TAPERED PLUG (3) ON PISTON HEAD (5). SLIDE SNAP RING (2) ONTO TOOL TAPERED PLUG. USE SNAP RING TOOL BODY (1) TO SEAT SNAP RING IN PISTON HEAD GROOVE (4).

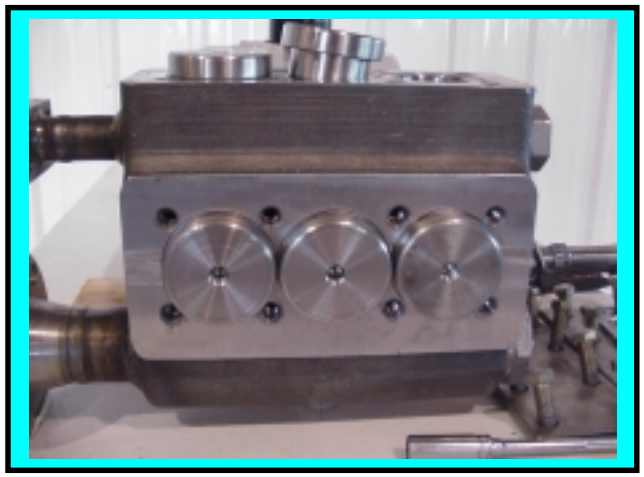


KA-KT-68
WING TYPE
VALVE PULLER

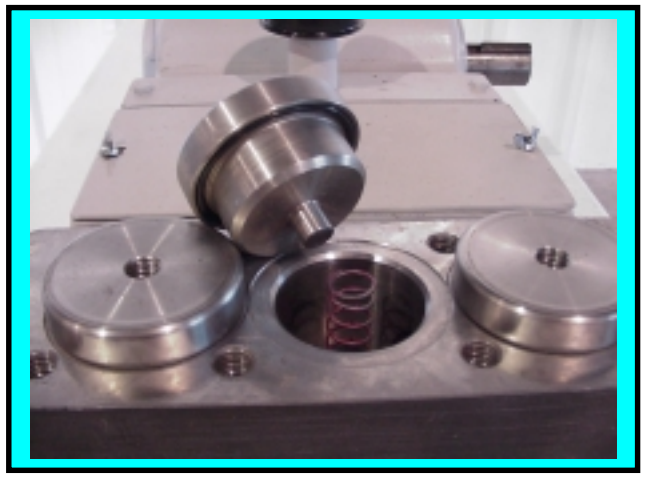
INSTRUCTIONS FOR CHANGING WING/GUIDED VALVES



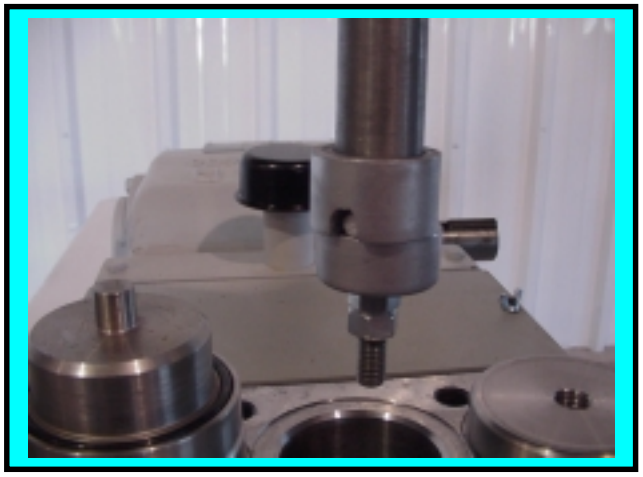
1. Remove Capscrews from Top and End Cover Plates



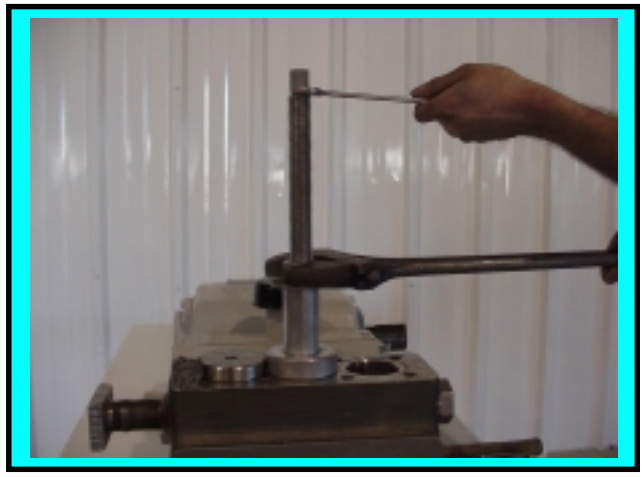
2. Remove Round Cover Caps; inspect o'rings for damage;



3. Remove Discharge Spring and Discharge Valve



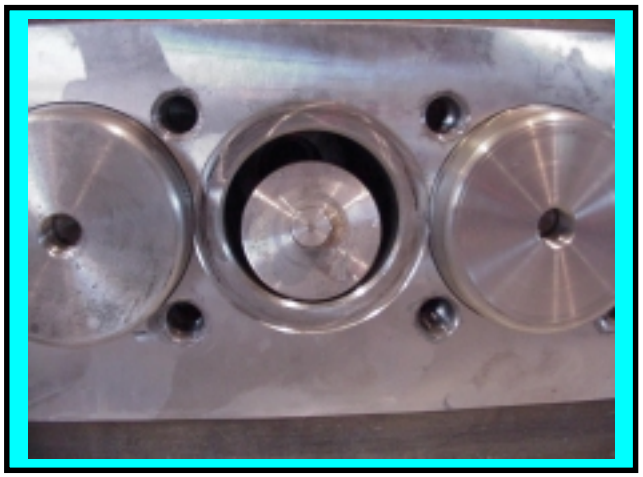
4. Insert Kerr Valve Seat Puller through valve seat with eccentric offset to engage valve seat. NOTE: Puller stud may be removed when pulling wing/guided valve seats.



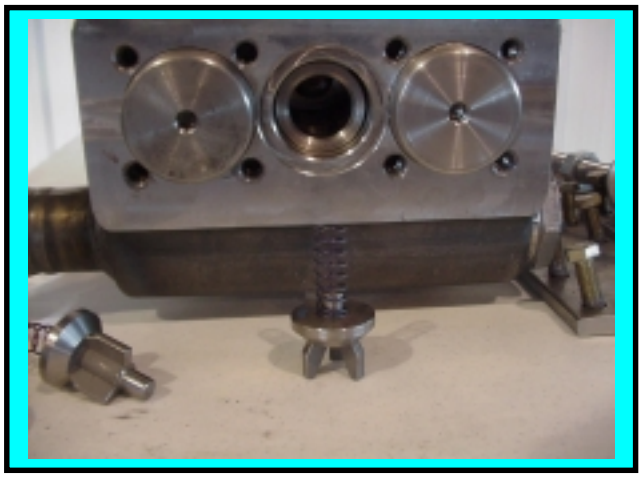
5. Hold Puller Stem from turning; Rotate large nut until seat releases

6. Remove Valve Seat from Puller; Spacer on Puller may need to be removed when pulling Suction Valve Seats; Remove remaining valves

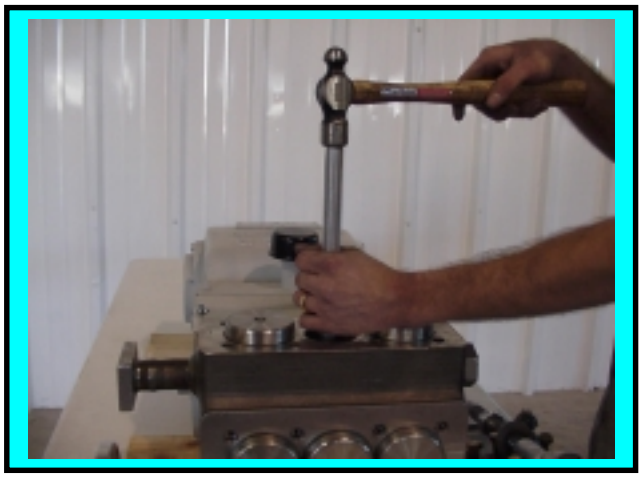
INSTRUCTIONS FOR CHANGING WING/GUIDED VALVES (cont.)



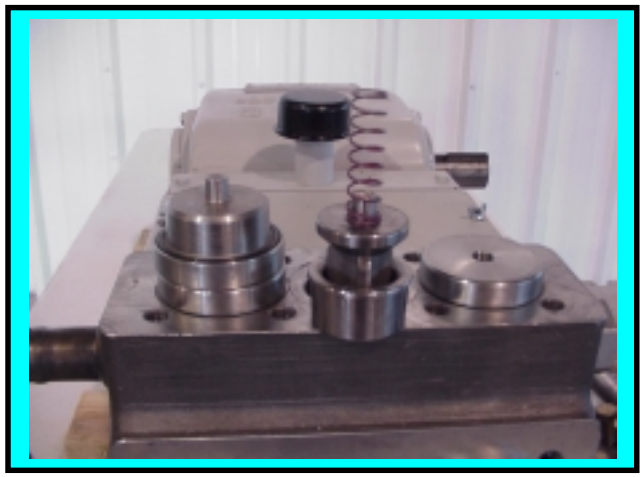
7. Remove Suction Valves, springs, and seats through End Port



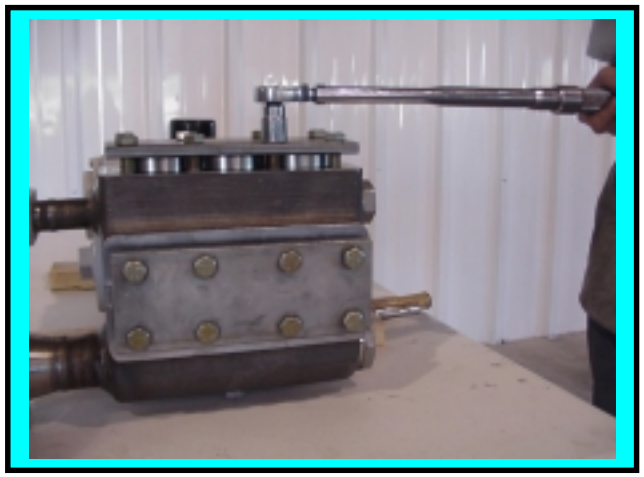
8. To Install Suction Valve & Seat, insert Valve Seat and Valve Body through End Port



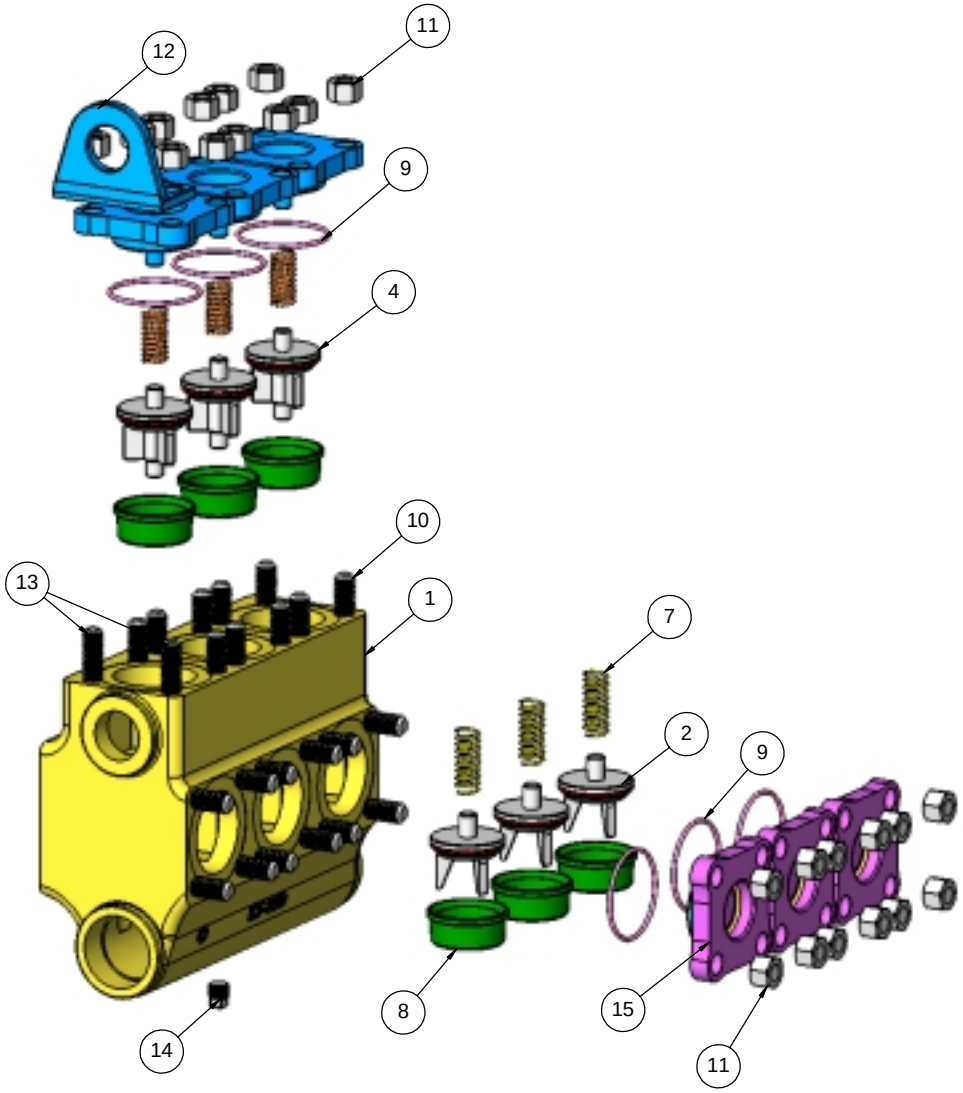
9. Use metal rod to drive valve seat assembly into seating area using several firm but, not heavy blows with a hammer



10. Install Discharge Valves after Suction Valves have been installed, always be sure short springs are on Suction Valve and Long Spring on Discharge Valves

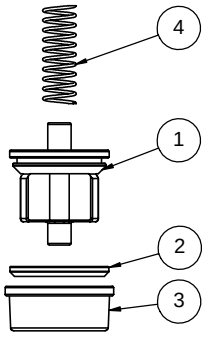


11. Install Cover Caps and torque Cover Plate capscrews to Kerr Pump Specs



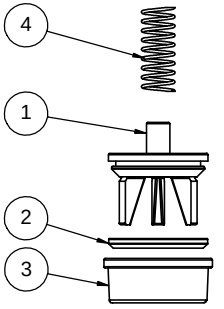
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	KT-33D	FLUID END (VESSEL ONLY)
2	3	KT-073HT	SUCTION VALVE, HEAT TREATED, A/R WITH INSERT
3	6	KA-KT-77	ABRASIVE RESISTANT VALVE INSERT
4	3	KT-072HT	DISCHARGE VALVE, HEAT TREATED, A/R WITH INSERT
5	3	KA-KT-34D	TOP COVER CAP (DUCTILE)
6	3	KP-KT-52L	VALVE SPRING (DISCHARGE) (LONG)
7	3	KP-KT-52S	VALVE SPRING (SUCTION) (SHORT)
8	6	KA-KT-074HT	VALVE SEAT, HEAT TREATED, A/R
9	6	KA-KT-38	COVER CAP O'RING
10	22	KA-KT-36	COVER CAP STUD
11	24	KA-KT-37	COVER CAP STUD NUT
12	1	KA-KT-126FE	FLUID END LIFTING EYE
13	2	KA-KT-36B	COVER CAP BRACKET STUD
14	1	AP-71	FLUID END DRAIN PLUG
15	3	KA-KT-35D	END COVER CAP (DUCTILE)

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	KT-072HT	DISCHARGE VALVE, HEAT TREATED, A/R WITH INSERT
2	1	KA-KT-77	ABRASIVE RESISTANT VALVE INSERT
3	1	KA-KT-074HT	VALVE SEAT, HEAT TREATED, A/R
4	1	KP-KT-52L	VALVE SPRING (DISCHARGE) (LONG)



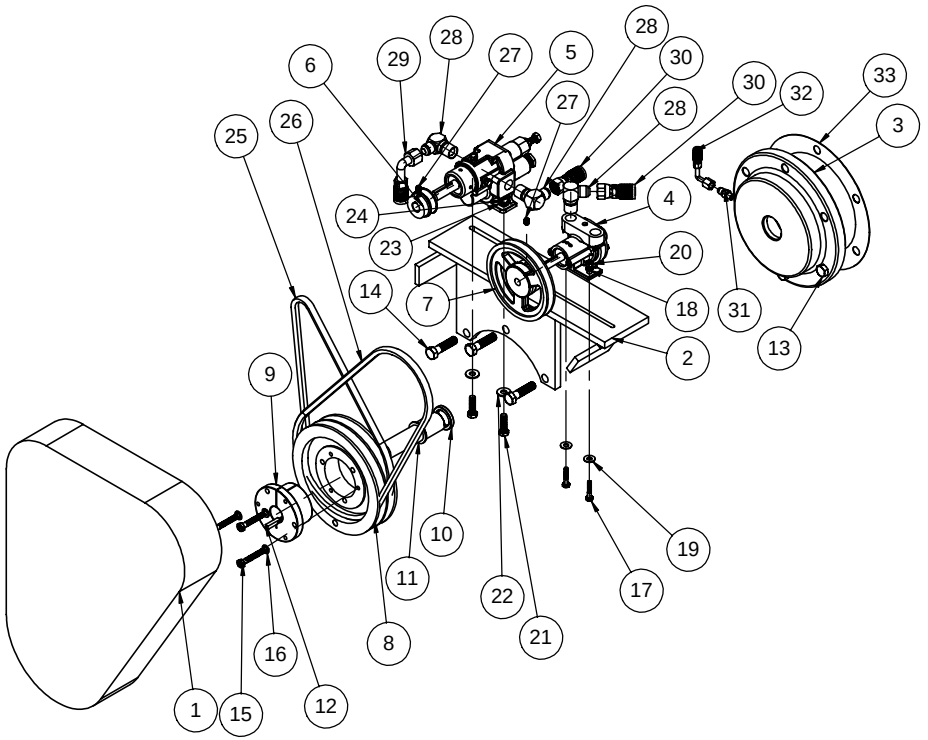
KT-300

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	KT-073HT	SUCTION VALVE, HEAT TREATED, A/R WITH INSERT
2	1	KA-KT-77	ABRASIVE RESISTANT VALVE INSERT
3	1	KA-KT-074HT	VALVE SEAT, HEAT TREATED, A/R
4	1	KP-KT-52S	VALVE SPRING (SUCTION) (SHORT)



KT-305

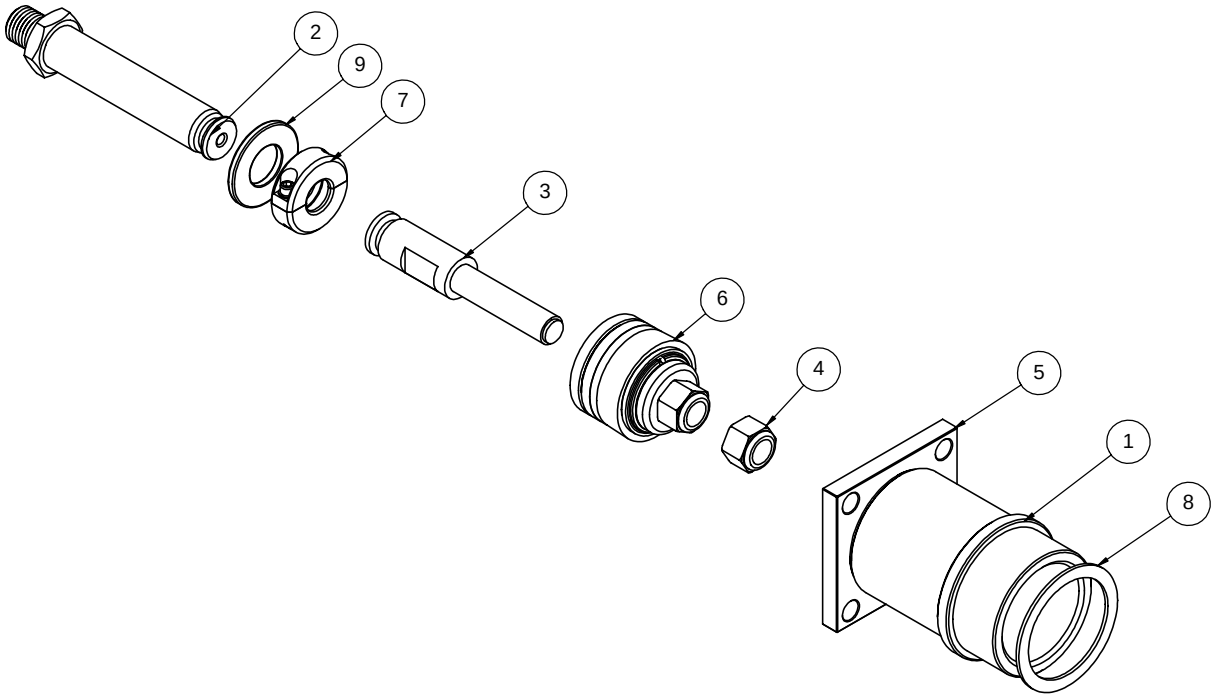
FLUID END ASSEMBLEY DRAWING



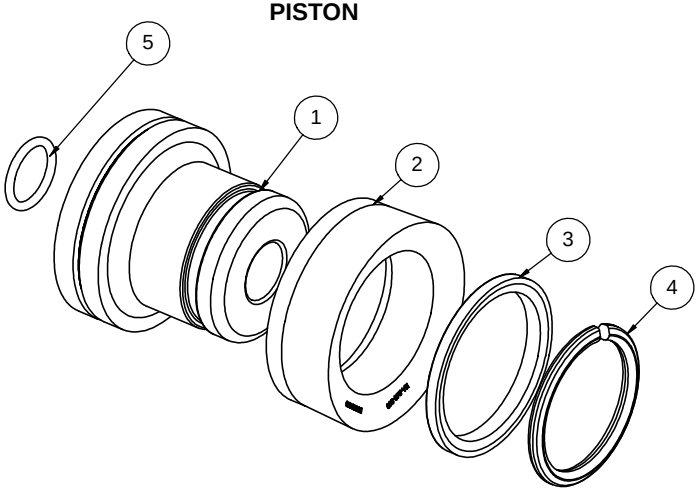
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	KT-235_A	BELT GUARD, PUMP DRIVE
2	1	KT-140_B	OIL AND WATER PUMP BRACKET
3	1	KT-130	BEARING HOUSING, EXTENSION SHAFT
4	1	KA-KM-KP-KT-195	WATER PUMP, BRONZE
5	1	KA-KP-KT-145	OIL PUMP, 1/2" CAST IRON
6	1	KA-KP-KT-150	SHEAVE, OIL PUMP
7	1	KA-KP-KT-200-520	SHEAVE, WATER PUMP
8	1	KA-KP-KT-230	SHEAVE, CRANKSHAFT DRIVE TO PUMPS
9	1	KA-KP-KT-230-9	SHEAVE BUSHING 1 1/8"
10	1	KA-KM-KP-KT-KZ-135	OIL SEAL, BEARING HOUSING EXTENSION SHAFT
11	1	KA-KP-KT-132	AUXILIARY SHAFT-SUPPLIED WITH KA-KP-KT-120
12	1	KA-KP-KT-133	KEY- SUPPLIED WITH KA-KP-KT-230-9
13	3	KA-KP-KT-6	BEARING HOUSING CAPSCREW (1 1/2)
14	3	KA-KP-KT-6B	BEARING HOUSING CAPSCREWS (2")
15	3	KA-KP-KT-230-15	BOLT SUPPLIED WITH KA-KP-KT-230-9
16	3	KA-KP-KT-230-16	WASHER SUPPLIED WITH KA-KP-KT-230-9
17	2	KA-KP-KT-235-17	1/4-20UNC X 1 1/4 CAPSCREW
18	2	KA-KM-KP-KT-190-13	1/4 LOCK WASHER
19	2	KA-KP-KT-235-19	1/4 WASHER
20	2	KA-KM-KP-KT-190-14	1/4-20UNC NUT
21	2	KA-KP-KT-235-21	3/8-16UNC X 1 1/4
22	2	KA-KP-KT-235-22	3/8 WASHER
23	2	KA-KP-KT-235-23	3/8 LOCK WASHER
24	2	KA-KP-KT-235-24	3/8-16-UNC HEX HEAD NUT
25	1	KT-155	BELT, OIL PUMP
26	1	KT-205	BELT, WATER PUMP
27	2	KA-KP-KT-235-27	3/8-16UNC X 3/8 SETSCREW
28	3	KA-KP-KT-160-1	JIC MALE ELBOW 1/2
29	1	KA-KP-KT-160-2	SAE 37 JIC FML SWIVEL 90 TUBE ELBOW 1/4 X 1/2
30	2	KA-KP-KT-235-30	SAE 37 JIC FML SWIVEL 3/8 X 1/2
31	1	KA-KP-KT-235-31	SAE JIC MALE CONNECTOR 1/4 X 1/8
32	1	KA-KP-KT-235-32	SAE 37 JIC FML SWIVEL 90 DEG TUBE ELBOW 1/4 X 1/4
33	1	KT-7	BEARING HOUSING GASKET

PUMP DRIVE ASSEMBLY

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	KT-285-350CH	LINER, 3 1/2" HEAT TREATED
2	1	KT-275	PONY ROD, PISTON PUMP TYPE
3	1	KT-265	PISTON EXTENSION ROD
4	1	KA-KT-270	PISTON EXTENSION ROD LOCK NUT
5	1	KA-KT-290-350	LINER RETAINER
6	1	KA-KT-245-350	PISTON COMPLETE 3 1/2"
7	1	KA-KT-280	CLAMP, PONY ROD TO PISTON ROD
8	1	KA-KT-295	LINER GASKET
9	1	KA-KT-32PT	PONY ROD SPLASH GUARD



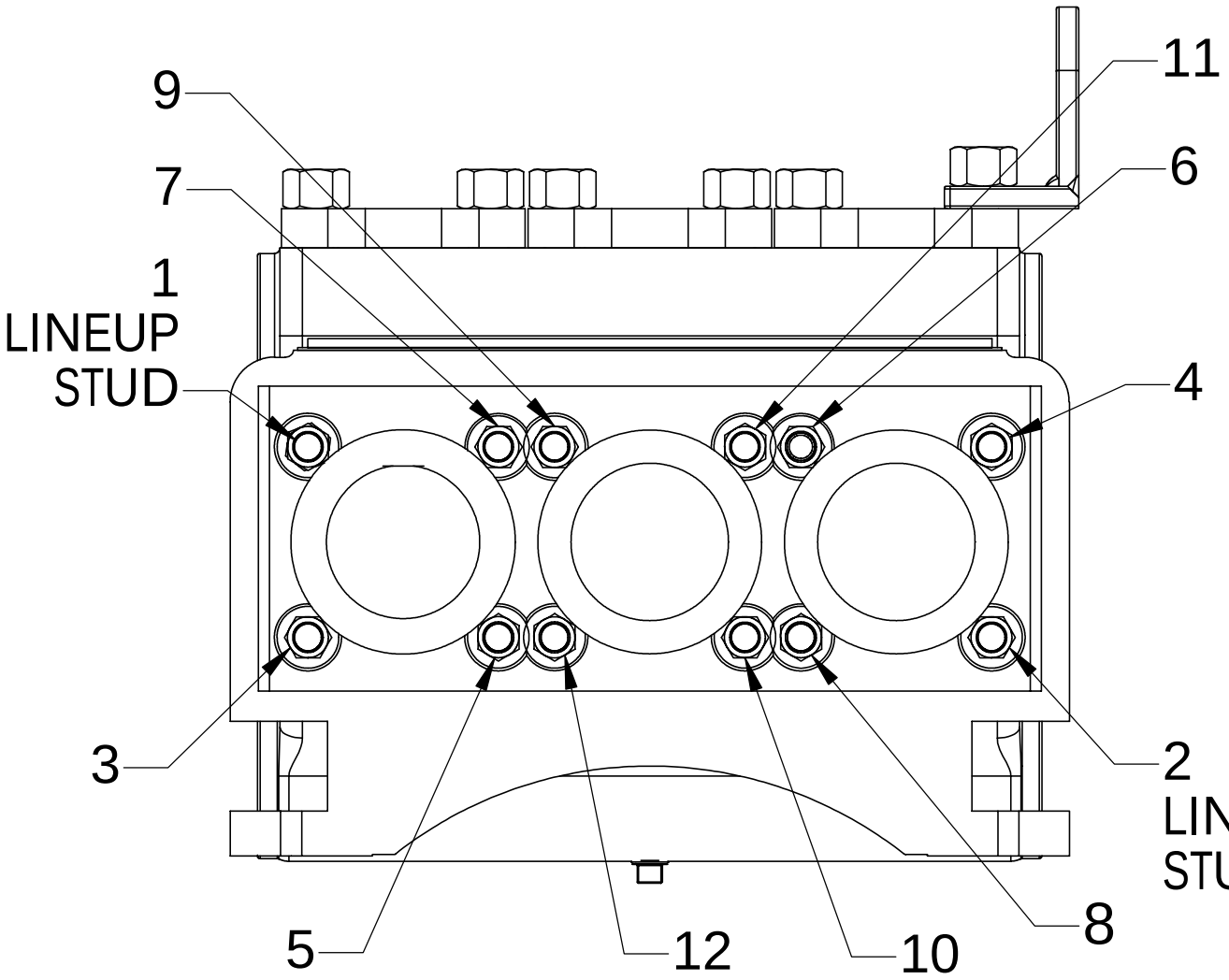
PISTON

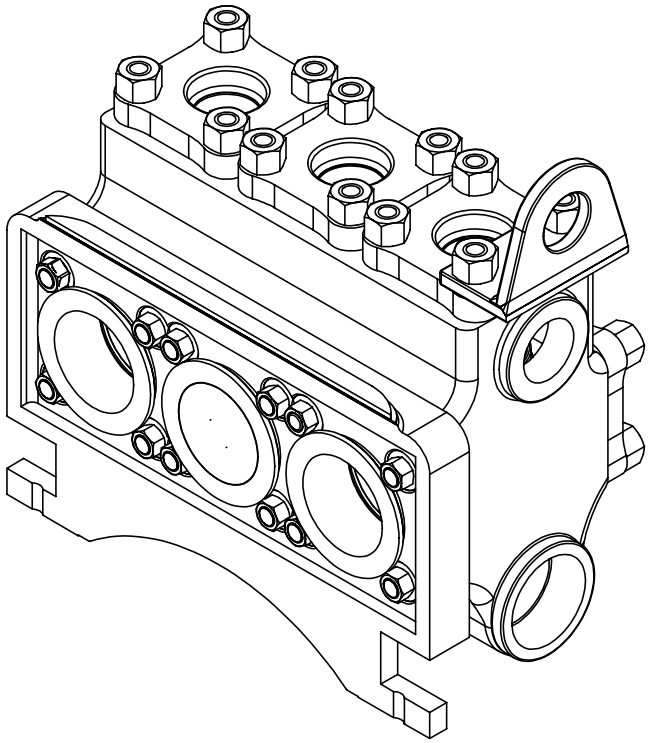


ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	KA-KT-250-350	PISTON, BODY ONLY, 3 1/2"
2	1	KA-KT-263-350	PISTON CUP
3	1	KA-KT-261-350	PISTON CUP RETAINER PLATE
4	1	KA-KT-262-350	PISTON CUP SNAP RING
5	1	KA-KP-KT-246	PISTON O'RING

PISTON ASSEMBLY DRAWING

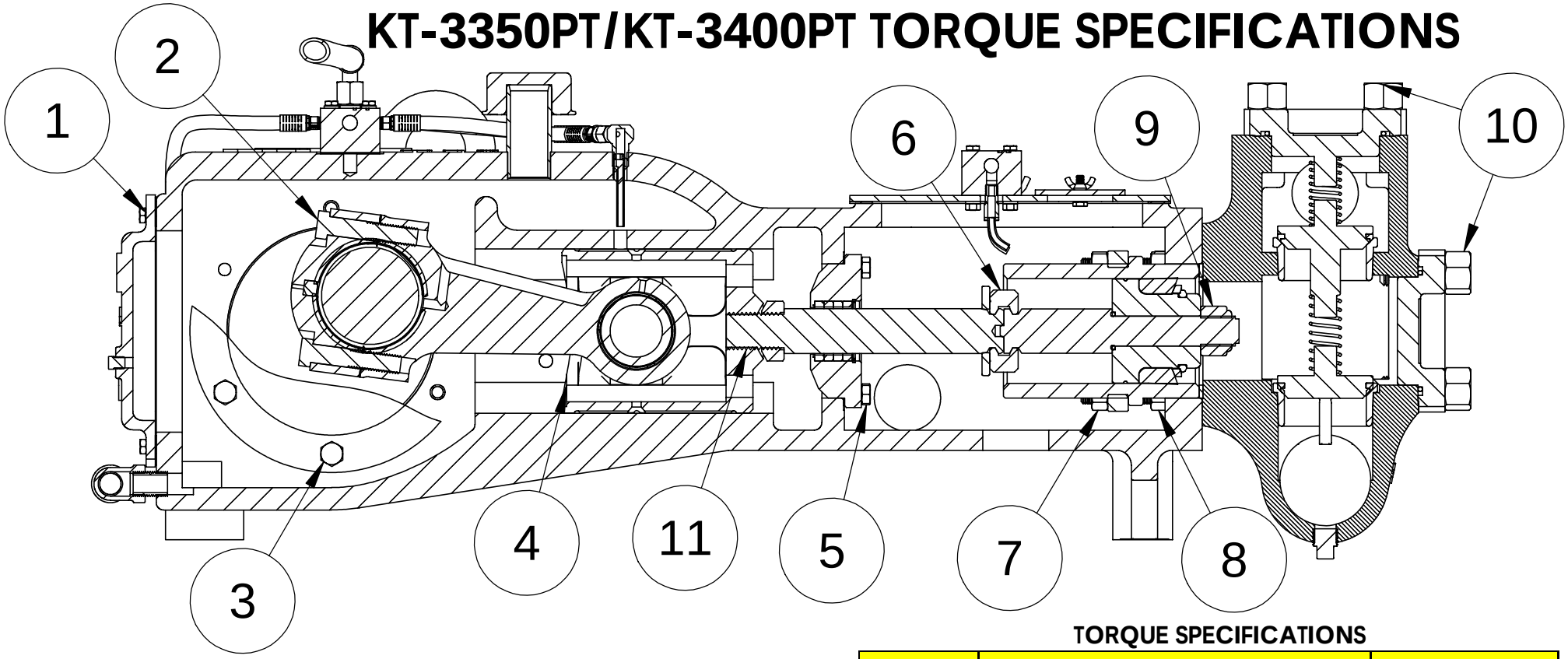
STUD TORGUE SEQUENCE
STUD REQUIREMENTS:
10 KT-59- FLUID END/LINER RETAINER STUDS
2 KT-59T- FLUID END/LINER RETAINER LINEUP STUDS

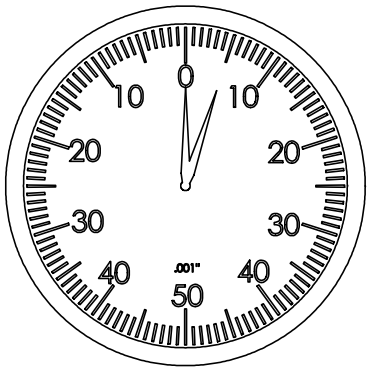




KT-3350PT
FLUID END TO POWER FRAME
STUD TORQUE SPEC 130 FT LB

KT-3350PT/KT-3400PT TORQUE SPECIFICATIONS





.000" - .005"
SHAFT END PLAY

WHEN ADJUSTING THE ENDPLAY OF THE TAPERED ROLLER BEARINGS USED ON THE CRANKSHAFT, DIAL INDICATORS AND SHIMS MUST BE PROPERLY USED. INCORRECT BEARING ADJUSTMENT MAY RESULT IN EXCESSIVE NOISE, TEMPERATURE, AND REDUCED BEARING LIFE. Kerr Pumps RECOMMENDS BETWEEN .000" - .005" OF INTERNAL AXIAL CLEARANCE (END PLAY OR SIDE TO SIDE) WHEN ASSEMBLED. FINAL ADJUSTMENT MUST BE MADE USING A DIAL INDICATOR.

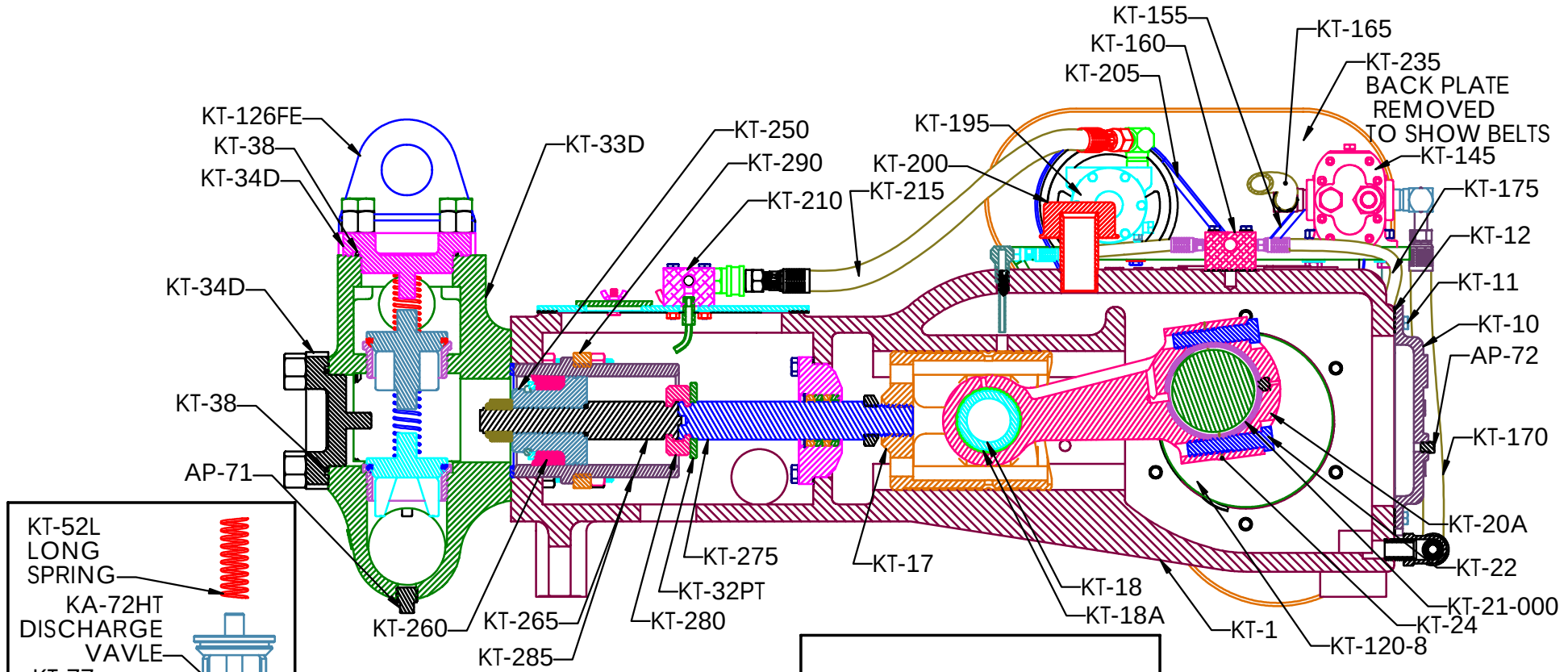
INSURE THE CONNECTING RODS ARE DISCONNECTED TO ALLOW FREE CRANKSHAFT MOTION.

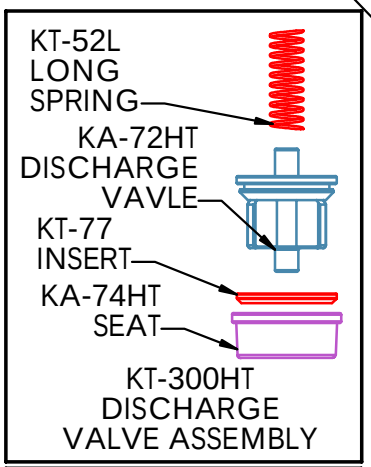
TORQUE SPECIFICATIONS

REFERENCE	DESCRIPTION	TORQUE
1	PAN COVER CAPSCREW	21 ft-lb (28 Nm)
2	CONNECTING ROD CAPSCREW	160 ft-lb (217 Nm)
3	BEARING HOUSING CAPSCREW	75 ft-lb (102 Nm)
4	WRIST PIN SET SCREW AND JAM NUT	30 ft-lb (41 Nm)
5	PONY ROD PACKING GLAND CAPSCREW	50 ft-lb (68 Nm)
6	CLAMP SOCKET HEAD CAPSCREW	20 ft-lb (27 Nm)
7	PISTON LINER RETAINER STUD NUT	100 ft-lb (136 Nm)
8	FLUID END STUD NUT	120 ft-lb (163 Nm)
9	PISTON EXTENSION ROD SELF-LOCKING NUT	500 ft-lb (678 Nm)
10	COVER CAP STUD NUT	200 ft-lb (271 Nm)
11	PONY ROD	1000 ft-lb (1356 Nm)

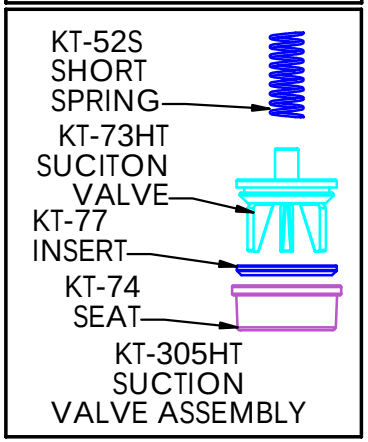
NOTE: WHEN USING LUBRICANTS, REDUCE TORQUE AS FOLLOWS;

LUBRICANT	PERCENTAGE OF TORQUE REDUCTION REQUIRED
WHITE LEAD	REDUCE TORQUE 25%
GRAPHITE	REDUCE TORQUE 30%
OIL	REDUCE TORQUE 40%
GREASE	REDUCE TORQUE 40%
ANTI - SEIZE COMPOUND	REDUCE TORQUE 45%

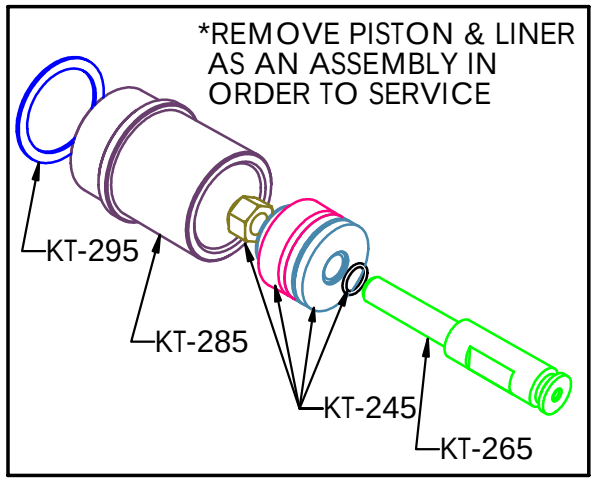


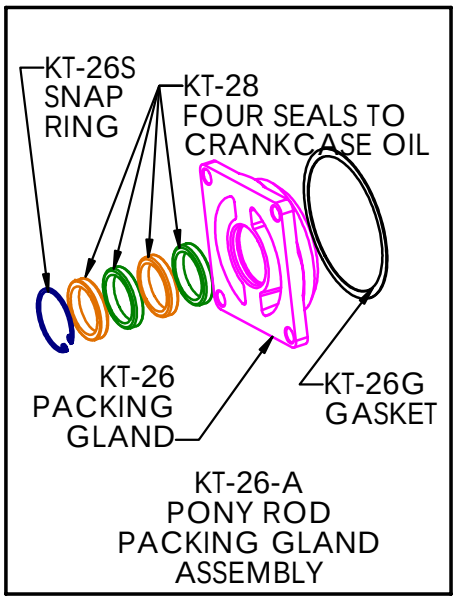


KT-300HT
DISCHARGE
VALVE ASSEMBLY



KT-305HT
SUCTION
VALVE ASSEMBLY



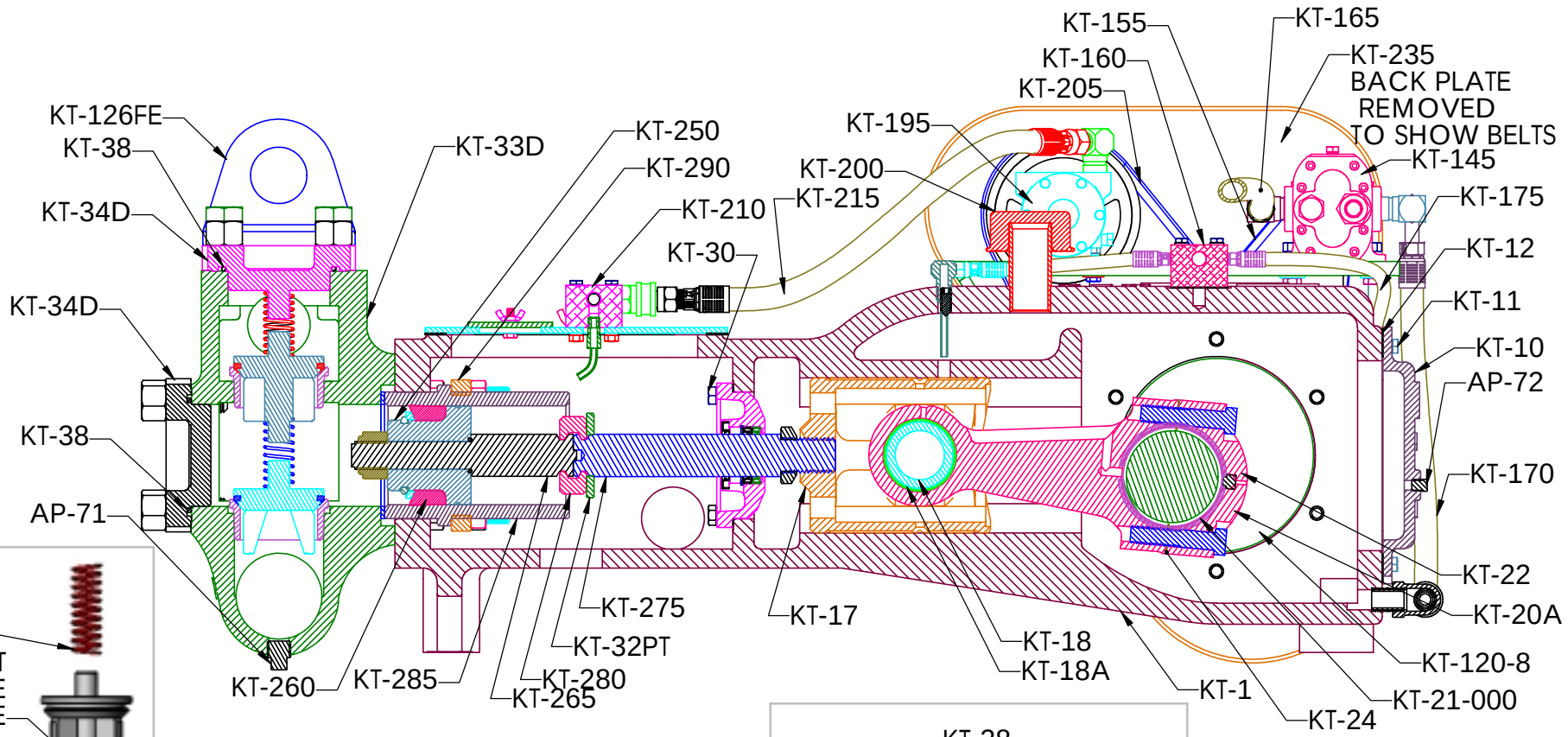


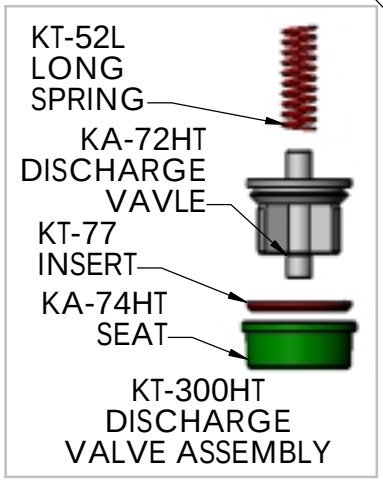
KT-26-A
PONY ROD
PACKING GLAND
ASSEMBLY

TROUBLESHOOTING GUIDE
for Kerr Pump

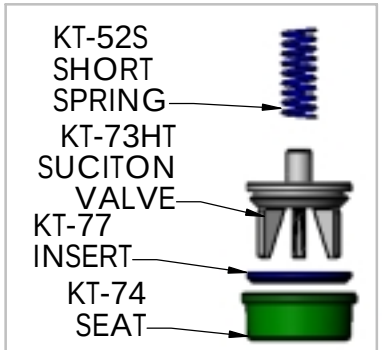
1) CHECK FOR LEAKING PISTONS
   - REPLACE IF NECESSARY
2) CHECK FOR PROPER FLUID FLOW TO PUMP
   - MINIMUM REQUIREMENT 3" SUCTION HOSE NO MORE THAN 50' LONG WITH 30 PSI OF CONTINUOUS PRESSURE FEEDING PUMP
3) REMOVE VALVE COVER CAPS AND INSPECT VALVES & VALVE SEATS FOR FOREIGN OBJECTS AND WEAR
   - REPLACE IF NECESSARY

KT-3350PT/KT-3400PT



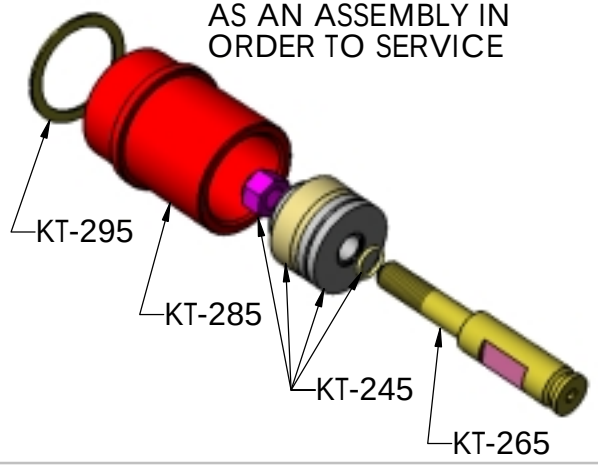


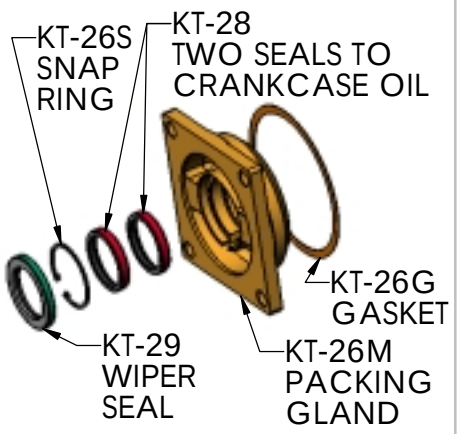
KT-300HT
DISCHARGE
VALVE ASSEMBLY



KT-305HT
SUCTION
VALVE ASSEMBLY

*REMOVE PISTON & LINER
AS AN ASSEMBLY IN
ORDER TO SERVICE





KT-26M-A
PONY ROD
PACKING GLAND
ASSEMBLY

TROUBLESHOOTING GUIDE
for Kerr Pump

1) CHECK FOR LEAKING PISTONS
- REPLACE IF NECESSARY

2) CHECK FOR PROPER FLUID FLOW TO PUMP
- MINIMUM REQUIREMENT 3" SUCTION HOSE NO MORE THAN 50' LONG WITH 30 PSI OF CONTINUOUS PRESSURE FEEDING PUMP

3) REMOVE VALVE COVER CAPS AND INSPECT VALVES & VALVE SEATS FOR FOREIGN OBJECTS AND WEAR
- REPLACE IF NECESSARY

KT-3350PT

Kerr KT-3350PT/ KT-3400PT Piston Type Pump

Part Number	No. Required	Description
KT- 1	1	Pump Case
*KT- 1-400PT	1	Pump Case
KT- 2	1	Crankshaft-Heat Treated
*KT- 2-400	1	Crankshaft-Heat Treated (for KT-3400)
KT- 3	1	Crankshaft Oil Seal
KT- 4	1	Bearing Housing (Blind Side)
*KT- 4-400	1	Bearing Housing (Blind Side)
KA-KB-KCP-KP-KSB-KT- 6	9	Bearing Housing Capscrews
KA-KB-KCP-KP-KSB-KT- 6B	3	Bearing Housing Capscrews 2"
KT- 7	2	Bearing Housing Gaskets
*KT- 7-400	2	Bearing Housing Gaskets
KT- 8-005		Main Bearing Adjusting Shims .005
*KT- 8-005-400		Main Bearing Adjusting Shims .005
KT- 8-010		Main Bearing Adjusting Shims .010
*KT- 8-010-400		Main Bearing Adjusting Shims .010
KT- 8-015		Main Bearing Adjusting Shims .015
*KT- 8-015-400		Main Bearing Adjusting Shims .015
KB-KSB-KT- 9	2	Main Bearings
KT- 10	1	Pan Cover
KA-KB-KCP-KP-KSB-KT- 11	14	Pan Cover Capscrews
KT- 12	1	Pan Cover Gasket
AP- 16	1	Breather Cap (Oil Filler)
AP- 16-5	1	Breather Cap Filler Tube
KA-KT- 17	3	Crosshead
KA-KT- 17T	3	Crosshead (Tapered)
KA-KT- 18	3	Wrist Pin
KA-KT- 18A	3	Wrist Pin Bushing
KA-KT- 19	3	Wrist Pin Set Screws & Nut
KT- 20	3	Connecting Rod (Inserted Both Ends)
KT- 20A	3	Connecting Rod Only (No Inserts - Requires inserts both ends)

Kerr KT-3350PT/ KT-3400PT Piston Type Pump

Part Number	No. Required	Description
KT- 21-000	3	Connecting Rod Insert Bushing (Std)
KT- 21-015	3	Connecting Rod Insert Bushing (.015)
KT- 21-030	3	Connecting Rod Insert Bushing (.030)
KT- 21-045	3	Connecting Rod Insert Bushing (.045)
KT- 21-060	3	Connecting Rod Insert Bushing (.060)
KA-KT- 22	6	Connecting Rod Capscrew
KT- 24	6	Connecting Rod Shims (Laminated)
KA-KT- 26	3	Pony Rod Packing Gland
KA-KT- 26A	3	Pony Rod Gland Assembly (Pony Rod, Snap Ring, Seals)
KA-KT- 26G	3	Pony Rod Gland Gasket
*KA-KT- 26G-400	6	Pony Rod Gland Gasket
KA-KT- 26S	3	Pony Rod Gland Snap Ring
KA-KT- 28	3 sets	Pony Rod Seal (4 Seals per Set)
KA-KT- 30	12	Pony Rod Packing Gland Capscrews
KA-KT- 32PT	3	Pony Rod Splash Guard
KT- 33	1	Fluid End Vessel Only
KA-KT- 34	3	Top Cover Cap
KA-KT- 35	3	End Cover Cap
KA-KT- 36	22	Cover Cap Stud
KA-KT- 36B	2	Cover Cap Bracket Stud
KA-KT- 37	24	Cover Cap Stud Nut
KA-KT- 38	6	Cover Cap O' Ring
KP-KT- 52L	3	Valve Spring (Discharge) (Long)
KP-KT- 52S	3	Valve Spring (Suction) (Short)
KA-KT- 59	10	Fluid End/Liner Retainer Stud
KA-KT- 59T	2	Fluid End/Liner Retainer Alignment Stud
KA-KT- 60	24	Fluid End/Liner Retainer Stud Nut
KA-KT 68	1	Valve Puller Wing Type
AP- 71	1	Drain Plug
AP- 72	3	Oil Level Plug
KT- 71PT	1	KT-3350PT Rebuild Gasket Kit Complete
KT- 072HT	3	Discharge Valve, Heat Treated, A/R with Insert
KT- 073HT	3	Suction Valve, Heat Treated, A/R with Insert

Kerr KT-3350PT/ KT-3400PT Piston Type Pump

Part Number	No. Required	Description
KA-KT- 074HT	6	Valve Seat, Heat Treated, A/R
KA-KT- 77	6	Abrasive Resistant Valve Insert
KT- 120-6	1	Crankshaft, Splined Hydraulic Drive 40 Tooth Spline
KT- 120-8	1	Crankshaft, Splined Hydraulic Drive 21 Tooth Spline
KT- 120-8-400PT	1	Crankshaft, Splined Hydraulic Drive 21 Tooth Spline
KT- 125-6	1	Bearing Housing, Hydraulic Drive # 6
KT- 125-8	1	Bearing Housing, Hydraulic Drive # 8
*KT- 125-8-400PT	1	Bearing Housing, Hydraulic Drive # 8
KT- 126BH	1	Bearing Cap Lifting Eye
KA-KT- 126FE	1	Fluid End Lifting Eye
KA-KT- 127	1	# 8 Auburn Housing Gasket
KT- 130	1	Bearing Housing, Extension Shaft Side
*KT- 130-400PT	1	Bearing Housing, Extension Shaft Side
AP- 135	1	Oil Seal, Bearing Housing Extension Shaft
KT- 140LH	1	Bracket, Oil and Water Pumps (Left-Hand Drive)
KT- 140RH	1	Bracket, Oil and Water Pumps (Right-Hand Drive)
KA-KT- 145	1	Oil Pump, 1/2" Cast Iron
KA-KT- 150	1	Sheave, Oil Pump
KT- 155	1	Belt, Oil Pump
KA-KT- 160	1	Oil Manifold
KA-KP-KT- 160-1	1	Oil Manifold 90 Degree Elbow
KA-KP-KT- 160-2	1	90 Degree Tube Fitting 1/2 (Supplied with hose)
KA-KP-KT- 160-3	5	Male Pipe Rigid 1/4 x 1/8 (Supplied with hose)
KA-KP-KT- 160-4	1	Oil Manifold Plug
KA-KT- 160-5	3	Fitting, Crosshead Oil Injector
KA-KT- 160-6	3	Fitting, Female Swivel (Supplied with hose)
KA-KT- 161	1	Oil Manifold Gasket
KT- 165	1	Oil Line, Pump to Oil Manifold
KT- 170	1	Oil Line, Pump to Oil Sump
KT- 175	2	Oil Line, Manifold to Bearing Housing
KT- 176	1	Oil Line, Manifold to Planetary Gear
KA-KT- 180	3	Oil Line, Manifold to Crosshead
KT- 190A	1	Piston Chamber Spray Unit Complete
KT- 190	1	Piston Chamber Cover
KA-KM-KP-KT- 190-2	1	Water Manifold Plug

Kerr KT-3350PT/ KT-3400PT Piston Type Pump

Part Number	No. Required	Description
KA-KM-KP-KT- 190-3	4	Water Manifold/Oil Manifold Bolt
KA-KM-KP-KT- 190-4	1	Water Manifold 90 Degree Fitting
KA-KM-KP-KT- 190-5	1	Water Manifold Quick Coupling
KA-KM-KP-KT- 190-8	2	Piston Chamber Cover Inspection Glass Wing Nut
KA-KM-KP-KT- 190-9	2	Piston Chamber Cover Inspection Glass Capscrew
KA-KP-KT- 190-10	2	Piston Chamber Cover Wing Nut
KA-KP-KT- 190-11	2	Piston Chamber Cover Setscrew
KA-KM-KP-KT- 190-12	3	Fitting, Water Jet
KA-KM-KP-KT- 190-13	4	1/4" Lock Washer
KA-KM-KP-KT- 190-14	4	1/4"-20 UNC Nut
KT- 191	1	Piston Chamber Cover Gasket
KA-KT- 192	1	Piston Chamber Cover Inspection Glass
KA-KM-KP-KT- 195	1	Water Pump, Bronze
KA-KM-KP-KT- 197	1	Water Pump Repair Kit (Nitrile)
KT- 200-520	1	Sheave, Water Pump 5.2"
KT- 200-320	1	Sheave, Water Pump 3.2"
KT- 200-260	1	Sheave, Water Pump 2.6"
KT- 200-175	1	Sheave, Water Pump 1.75"
KT- 205-041	1	Belt, Water Pump A41
KT- 205-039	1	Belt, Water Pump A39
KT- 205-037	1	Belt, Water Pump A37
KT- 205-035	1	Belt, Water Pump A35
KA-KT- 210	1	Water Manifold
KT- 215	1	Line, Water Pump to Manifold
KA-KM-KP-KT- 216	1	3/8" Quick Connect
KT- 220	1	Line, Water Pump to Supply Tank
KT- 225	3	Line, Water Manifold to Piston Cover
KA-KP-KT- 230	1	Sheave, Crankshaft Drive to Pumps
KA-KP-KT- 230-9	1	Sheave Bushing
KT- 235LH	1	Belt Guard, Pump Drive (Left-Hand Drive)
KT- 235RH	1	Belt Guard, Pump Drive (Right-Hand Drive)
KA-KP-KT- 235-17	2	1/4"-20 UNC x 1 1/4" Capscrew
KA-KP-KT- 235-19	2	1/4" Flat Washer
KA-KP-KT- 235-21	2	3/8"-16 UNC x 1 1/4"
KA-KP-KT- 235-22	2	3/8" Flat Washer

Kerr KT-3350PT/ KT-3400PT Piston Type Pump

Part Number	No. Required	Description
KA-KP-KT- 235-23	2	3/8" Lock Washer
KA-KP-KT- 235-24	2	3/8"-16 UNC Hex Head Nut
KA-KP-KT- 235-27	2	3/8"-16 UNC x 3/8" Setscrew
KA-KP-KT- 235-31	2	SAE JIC Male Connector 1/4" x 1/8"
KA-KP-KT- 235-32	1	90 Degree Tube Fitting 1/4 (Supplied with hose)
KA-KP-KT- 235-50	1	Rotation Label
KA-KT- 245-300	3	Piston Complete 3"
KA-KT- 245-350	3	Piston Complete 3 1/2"
KA-KT- 245-400	3	Piston Complete 4"
KA-KP-KT- 246	3	Piston O' Ring
KA-KT- 248	1	Piston Snap Ring Installation Tool
KA-KT- 250-300	3	Piston, Body Only 3"
KA-KT- 250-350	3	Piston, Body Only 3 1/2"
*KA-KT- 250-350-400	3	Piston, Body Only 3 1/2"
KA-KT- 250-400	3	Piston, Body Only 4"
KA-KT- 250-400-400	3	Piston, Body Only 4"
KA-KT- 260-300	3	Piston Cup Kit 3" (cup, retainer plate, snap ring)
KA-KT- 260-350	3	Piston Cup Kit 3 1/2"(cup, retainer plate, snap ring)
*KA-KT- 260-400	3	Piston Cup Kit 4" (cup, retainer plate, snap ring)
KT- 265	3	Piston Extension Rod
KA-KP-KT- 270	3	Piston Extension Rod Lock Nut
KT- 275	3	Pony Rod Piston Pump Type
KA-KT- 276	1	Installation Tool for Pony Rod Seals
KA-KT- 277	1	Pony Rod Installation Wrench
KA-KT- 280	3	Clamp, Pony Rod to Piston Rod
KT- 285-300CH	3	Liner, 3" Chrome
KT- 285-300CER	3	Liner, 3" Ceramic
KT- 285-350CH	3	Liner, 3 1/2" Chrome
KT- 285-350CER	3	Liner, 3 1/2" Ceramic
KT- 285-400CH	3	Liner, 4" Chrome
KT- 285-300CER-A	3	Liner Assembly 3" (Piston complete, rod, locknut, liner, gasket)
KT- 285-350CER-A	3	Liner Assembly 3 1/2" (Piston complete, rod, locknut, liner, gasket)
KT- 285-300CH-A	3	Liner Assembly 3" (Piston complete, rod, locknut, liner, gasket)
KT- 285-350CH-A	3	Liner Assembly 3 1/2" (Piston complete, rod, locknut, liner, gasket)
KT- 285-400CH-A	3	Liner Assembly 4" (Piston complete, rod, locknut, liner, gasket)

Kerr KT-3350PT/ KT-3400PT Piston Type Pump

Part Number	No. Required	Description
KA-KT- 290	3	Liner Retainer
KA-KT- 295	3	Liner Gasket
KT- 300	3	A/R Discharge Valve Complete (KT-72HT, KA-KT-74HT & 52L)
KT- 305	3	A/R Suction Valve Complete (KT-73HT, KA-KT-74HT & 52S)
KA-KP-KT- 306	1	Valve Seat Seating Tool
KA-KT- 320	1	Flow Meter
KP-KT- 323	1	# 6 Planetary Gear Assembly
KA-KT- 324	1	# 8 Planetary Gear Assembly
KT- 325	1	Planetary Adapter Kit 6" to 8"
KA-KT- 326	1	Spline Adapter (21-40)
KA-KT- 327	1	Spline Adapter Spacer
KA-KP-KT- 330	1	DO 266 SAE "C" Drive Assembly
KA-KP-KT- 331	1	O'Ring, #8 Auburn Input Drive Assembly
KA-KT- 450	1	Sunstrand Motor 90 Series
KA-KT- 500	1	3.5"-4" Tool Kit consists of (KA-KT-68, KA-KT-248, KA-KT-276KA-KT-277, KA-KP-KT-306)

*KT-3400PT part numbers

Kerr KT-3350PT/ KT-3400PT Piston Type

Part Number	No. Required	Description
KT- 1	1	Pump Case
*KT- 1-400PT	1	Pump Case
KT- 2	1	Crankshaft-Heat Treated
*KT- 2-400	1	Crankshaft-Heat Treated (for KT-3400)
KT- 3	1	Crankshaft Oil Seal
KT- 4	1	Bearing Housing (Blind Side)
*KT- 4-400	1	Bearing Housing (Blind Side)
KA-KB-KCP-KP-KSB-KT- 6	9	Bearing Housing Capscrews
KA-KB-KCP-KP-KSB-KT- 6B	3	Bearing Housing Capscrews 2"
KT- 7	2	Bearing Housing Gaskets
*KT- 7-400	2	Bearing Housing Gaskets
KT- 8-005		Main Bearing Adjusting Shims .005
*KT- 8-005-400		Main Bearing Adjusting Shims .005
KT- 8-010		Main Bearing Adjusting Shims .010
*KT- 8-010-400		Main Bearing Adjusting Shims .010
KT- 8-015		Main Bearing Adjusting Shims .015
*KT- 8-015-400		Main Bearing Adjusting Shims .015
KB-KSB-KT- 9	2	Main Bearings
KT- 10	1	Pan Cover
KA-KB-KCP-KP-KSB-KT- 11	14	Pan Cover Capscrews
KT- 12	1	Pan Cover Gasket
AP- 16	1	Breather Cap (Oil Filler)
AP- 16-5	1	Breather Cap Filler Tube
KA-KT- 17	3	Crosshead
KA-KT- 17T	3	Crosshead (Tapered)
KA-KT- 18	3	Wrist Pin
KA-KT- 18A	3	Wrist Pin Bushing
KA-KT- 19	3	Wrist Pin Set Screws & Nut
KT- 20	3	Connecting Rod (Inserted Both Ends)
KT- 20A	3	Connecting Rod Only (No Inserts - Requires inserts both ends)
KT- 21-000	3	Connecting Rod Insert Bushing (Std)
KT- 21-015	3	Connecting Rod Insert Bushing (.015)
KT- 21-030	3	Connecting Rod Insert Bushing (.030)
KT- 21-045	3	Connecting Rod Insert Bushing (.045)
KT- 21-060	3	Connecting Rod Insert Bushing (.060)
KA-KT- 22	6	Connecting Rod Capscrew

Kerr KT-3350PT/ KT-3400PT Piston Type

Part Number	No. Required	Description
KT- 24	6	Connecting Rod Shims (Laminated)
KA-KT- 26	3	Pony Rod Packing Gland
KA-KT- 26A	3	Pony Rod Gland Assembly (Pony Rod, Snap Ring, Seals)
KA-KT- 26G	3	Pony Rod Gland Gasket
*KA-KT- 26G-400	6	Pony Rod Gland Gasket
KA-KT- 26S	3	Pony Rod Gland Snap Ring
KA-KT- 26M	3	Pony Rod Gland Snap Ring Type for KA-KT-29 Seal Kit
KA-KT- 26M-A	3	Pony Rod Gland Assembly (Pony Rod Gland, Snap Ring, 2 Seals, & 1 Wiper)
KA-KT- 28	3 sets	Pony Rod Seal (4 Seals per Set)
KA-KT- 29	3	Pony Rod Seal Kit (2 Seals & 1 Wiper per Set)
KA-KT- 30	12	Pony Rod Packing Gland Capscrews
KA-KT- 32PT	3	Pony Rod Splash Guard
KT- 33	1	Fluid End Vessel Only
KA-KT- 34	3	Top Cover Cap
KA-KT- 35	3	End Cover Cap
KA-KT- 36	22	Cover Cap Stud
KA-KT- 36B	2	Cover Cap Bracket Stud
KA-KT- 37	24	Cover Cap Stud Nut
KA-KT- 38	6	Cover Cap O' Ring
KP-KT- 52L	3	Valve Spring (Discharge) (Long)
KP-KT- 52S	3	Valve Spring (Suction) (Short)
KA-KT- 59	10	Fluid End/Liner Retainer Stud
KA-KT- 59T	2	Fluid End/Liner Retainer Alignment Stud
KA-KT- 60	24	Fluid End/Liner Retainer Stud Nut
KA-KT 68	1	Valve Puller Wing Type
AP- 71	1	Drain Plug
AP- 72	3	Oil Level Plug
KT- 71PT	1	KT-3350PT Rebuild Gasket Kit Complete
KT- 072HT	3	Discharge Valve, Heat Treated, A/R with Insert
KT- 073HT	3	Suction Valve, Heat Treated, A/R with Insert
KA-KT- 074HT	6	Valve Seat, Heat Treated, A/R
KA-KT- 77	6	Abrasive Resistant Valve Insert
KT- 120-6	1	Crankshaft, Splined Hydraulic Drive 40 Tooth Spline
KT- 120-8	1	Crankshaft, Splined Hydraulic Drive 21 Tooth Spline
KT- 120-8-400PT	1	Crankshaft, Splined Hydraulic Drive 21 Tooth Spline
KT- 125-6	1	Bearing Housing, Hydraulic Drive # 6
KT- 125-8	1	Bearing Housing, Hydraulic Drive # 8
*KT- 125-8-400PT	1	Bearing Housing, Hydraulic Drive # 8
KT- 126BH	1	Bearing Cap Lifting Eye

Kerr KT-3350PT/ KT-3400PT Piston Type

Part Number	No. Required	Description
KA-KT- 126FE	1	Fluid End Lifting Eye
KA-KT- 127	1	# 8 Auburn Housing Gasket
KT- 130	1	Bearing Housing, Extension Shaft Side
*KT- 130-400PT	1	Bearing Housing, Extension Shaft Side
AP- 132	1	Extension Shaft
AP- 135	1	Oil Seal, Bearing Housing Extension Shaft
KT- 140LH	1	Bracket, Oil and Water Pumps (Left-Hand Drive)
KT- 140RH	1	Bracket, Oil and Water Pumps (Right-Hand Drive)
KA-KT- 145	1	Oil Pump, 1/2" Cast Iron
KA-KT- 150	1	Sheave, Oil Pump
KT- 155	1	Belt, Oil Pump
KA-KT- 160	1	Oil Manifold
KA-KP-KT- 160-1	1	Oil Manifold 90 Degree Elbow
KA-KP-KT- 160-2	1	90 Degree Tube Fitting 1/2 (Supplied with hose)
KA-KP-KT- 160-3	5	Male Pipe Rigid 1/4 x 1/8 (Supplied with hose)
KA-KP-KT- 160-4	1	Oil Manifold Plug
KA-KT- 160-5	3	Fitting, Crosshead Oil Injector
KA-KT- 160-6	3	Fitting, Female Swivel (Supplied with hose)
KA-KT- 161	1	Oil Manifold Gasket
KT- 165	1	Oil Line, Pump to Oil Manifold
KT- 170	1	Oil Line, Pump to Oil Sump
KT- 175	2	Oil Line, Manifold to Bearing Housing
KT- 176	1	Oil Line, Manifold to Planetary Gear
KA-KT- 180	3	Oil Line, Manifold to Crosshead
KT- 190A	1	Piston Chamber Spray Unit Complete
KT- 190	1	Piston Chamber Cover
KA-KM-KP-KT- 190-2	1	Water Manifold Plug
KA-KM-KP-KT- 190-3	4	Water Manifold/Oil Manifold Bolt
KA-KM-KP-KT- 190-4	1	Water Manifold 90 Degree Fitting
KA-KM-KP-KT- 190-5	1	Water Manifold Quick Coupling
KA-KM-KP-KT- 190-8	2	Piston Chamber Cover Inspection Glass Wing Nut
KA-KM-KP-KT- 190-9	2	Piston Chamber Cover Inspection Glass Capscrew
KA-KP-KT- 190-10	2	Piston Chamber Cover Wing Nut
KA-KP-KT- 190-11	2	Piston Chamber Cover Setscrew
KA-KM-KP-KT- 190-12	3	Fitting, Water Jet
KA-KM-KP-KT- 190-13	4	1/4" Lock Washer
KA-KM-KP-KT- 190-14	4	1/4"-20 UNC Nut
KT- 191	1	Piston Chamber Cover Gasket
KA-KT- 192	1	Piston Chamber Cover Inspection Glass
KA-KM-KP-KT- 195	1	Water Pump, Bronze
KA-KM-KP-KT- 197	1	Water Pump Repair Kit (Nitrile)
KT- 200-520	1	Sheave, Water Pump 5.2"

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Part Number	No. Required	Description
KT- 200-320	1	Sheave, Water Pump 3.2"
KT- 200-260	1	Sheave, Water Pump 2.6"
KT- 200-175	1	Sheave, Water Pump 1.75"
KT- 205-041	1	Belt, Water Pump A41
KT- 205-039	1	Belt, Water Pump A39
KT- 205-037	1	Belt, Water Pump A37
KT- 205-035	1	Belt, Water Pump A35
KA-KT- 210	1	Water Manifold
KT- 215	1	Line, Water Pump to Manifold
KA-KM-KP-KT- 216	1	3/8" Quick Connect
KT- 220	1	Line, Water Pump to Supply Tank
KT- 225	3	Line, Water Manifold to Piston Cover
KA-KP-KT- 230	1	Sheave, Crankshaft Drive to Pumps
KA-KP-KT- 230-9	1	Sheave Bushing
KT- 235LH	1	Belt Guard, Pump Drive (Left-Hand Drive)
KT- 235RH	1	Belt Guard, Pump Drive (Right-Hand Drive)
KA-KP-KT- 235-17	2	1/4"-20 UNC x 1 1/4" Capscrew
KA-KP-KT- 235-19	2	1/4" Flat Washer
KA-KP-KT- 235-21	2	3/8"-16 UNC x 1 1/4"
KA-KP-KT- 235-22	2	3/8" Flat Washer
KA-KP-KT- 235-23	2	3/8" Lock Washer
KA-KP-KT- 235-24	2	3/8"-16 UNC Hex Head Nut
KA-KP-KT- 235-27	2	3/8"-16 UNC x 3/8" Setscrew
KA-KP-KT- 235-31	2	SAE JIC Male Connector 1/4" x 1/8"
KA-KP-KT- 235-32	1	90 Degree Tube Fitting 1/4 (Supplied with hose)
KA-KP-KT- 235-50	1	Rotation Label
KA-KT- 245-300	3	Piston Complete 3"
KA-KT- 245-350	3	Piston Complete 3 1/2"
KA-KT- 245-400	3	Piston Complete 4"
KA-KP-KT- 246	3	Piston O' Ring
KA-KT- 248	1	Piston Snap Ring Installation Tool
KA-KT- 250-300	3	Piston, Body Only 3"
KA-KT- 250-350	3	Piston, Body Only 3 1/2"
*KA-KT- 250-350-400	3	Piston, Body Only 3 1/2"
KA-KT- 250-400	3	Piston, Body Only 4"
KA-KT- 250-400-400	3	Piston, Body Only 4"
KA-KT- 260-300	3	Piston Cup Kit 3" (cup, retainer plate, snap ring)
KA-KT- 260-350	3	Piston Cup Kit 3 1/2"(cup, retainer plate, snap ring)
*KA-KT- 260-400	3	Piston Cup Kit 4" (cup, retainer plate, snap ring)
KT- 265	3	Piston Extension Rod
KA-KP-KT- 270	3	Piston Extension Rod Lock Nut
KT- 275	3	Pony Rod Piston Pump Type

Kerr KT-3350PT/ KT-3400PT Piston Type

Part Number	No. Required	Description
KA-KT- 276	1	Installation Tool for Pony Rod Seals
KA-KT- 277	1	Pony Rod Installation Wrench
KA-KT- 280	3	Clamp, Pony Rod to Piston Rod
KT- 285-300CH	3	Liner, 3" Chrome
KT- 285-300CER	3	Liner, 3" Ceramic
KT- 285-350CH	3	Liner, 3 1/2" Chrome
KT- 285-350CER	3	Liner, 3 1/2" Ceramic
KT- 285-400CH	3	Liner, 4" Chrome
KT- 285-300CER-A	3	Liner Assembly 3" (Piston complete, rod, locknut, liner, gasket)
KT- 285-350CER-A	3	Liner Assembly 3 1/2" (Piston complete, rod, locknut, liner, gasket)
KT- 285-300CH-A	3	Liner Assembly 3" (Piston complete, rod, locknut, liner, gasket)
KT- 285-350CH-A	3	Liner Assembly 3 1/2" (Piston complete, rod, locknut, liner, gasket)
KT- 285-400CH-A	3	Liner Assembly 4" (Piston complete, rod, locknut, liner, gasket)
KA-KT- 290	3	Liner Retainer
KA-KT- 295	3	Liner Gasket
KT- 300	3	A/R Discharge Valve Complete (KT-72HT, KA-KT-74HT & 52L)
KT- 305	3	A/R Suction Valve Complete (KT-73HT, KA-KT-74HT & 52S)
KA-KP-KT- 306	1	Valve Seat Seating Tool
KA-KT- 320	1	Flow Meter
KP-KT- 323	1	# 6 Planetary Gear Assembly
KA-KT- 324	1	# 8 Planetary Gear Assembly
KT- 325	1	Planetary Adapter Kit 6" to 8"
KA-KT- 326	1	Spline Adapter (21-40)
KA-KT- 327	1	Spline Adapter Spacer
KA-KP-KT- 330	1	DO 266 SAE "C" Drive Assembly
KA-KP-KT- 331	1	O'Ring, #8 Auburn Input Drive Assembly
KA-KT- 450	1	Sunstrand Motor 90 Series
KA-KT- 500	1	3.5"-4" Tool Kit consists of (KA-KT-68, KA-KT-248, KA-KT-276KA-KT-277, KA-KP-KT-306)
KA-KT- 701	1	Oil Cooler w/110 V Fan Motor

*KT-3400PT part numbers

Prices subject to change without notice